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Do recoveries die, or are they killed?

Pinstriped greens take on Big Oil

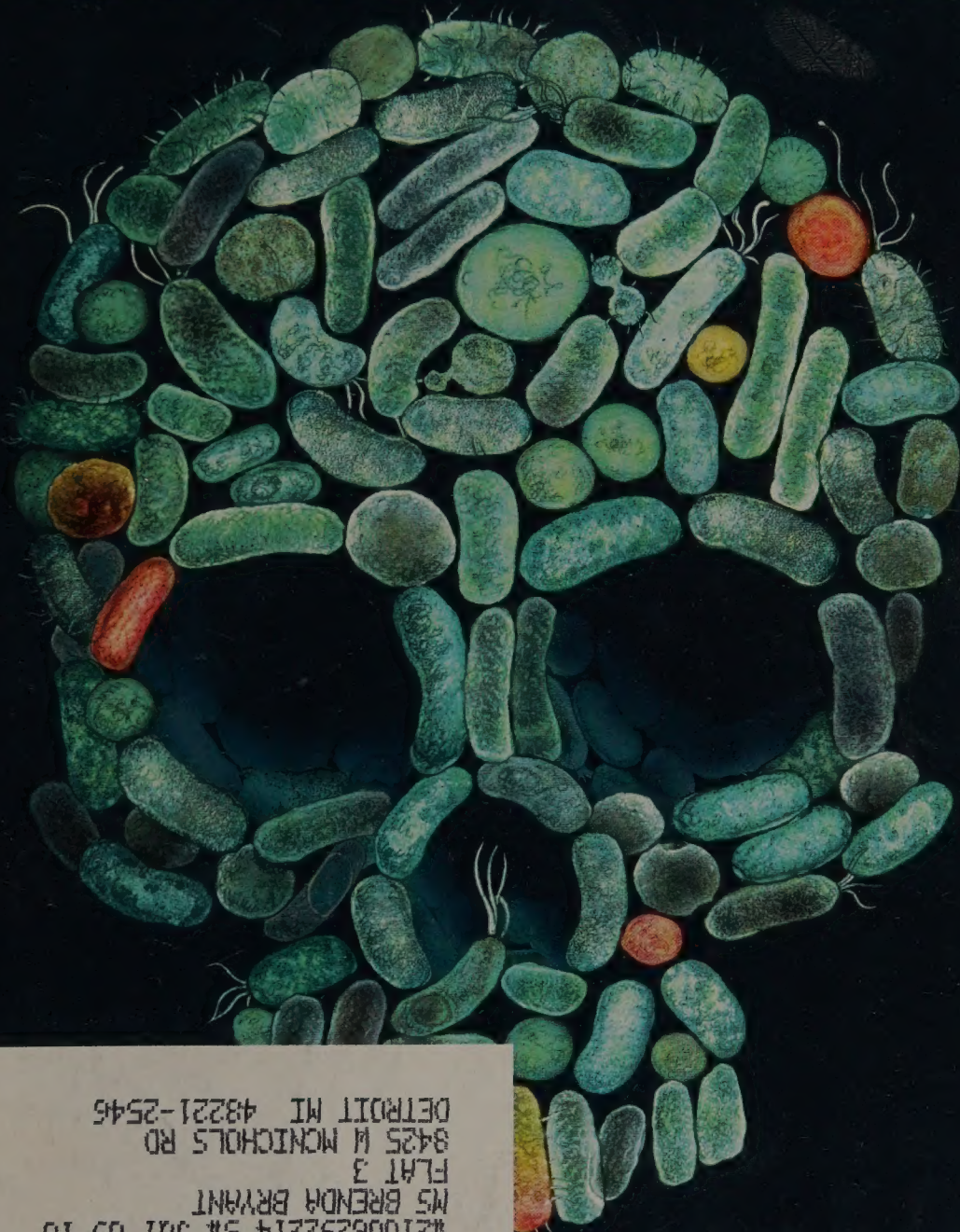
Boss of the UN: worst job in the world

Win or lose, dark days for Cameron

How gangs suck El Salvador dry

When the drugs don't work

The rise of antibiotic resistance



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From A to

Seize the simple pleasures.

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A photograph of two men in business suits sitting at a table, laughing and talking. There are wine glasses and a small plant on the table. The background is a blurred interior space.

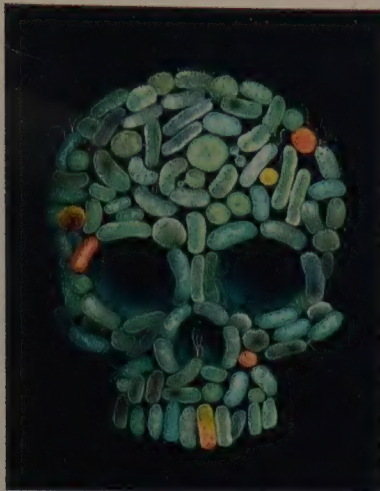
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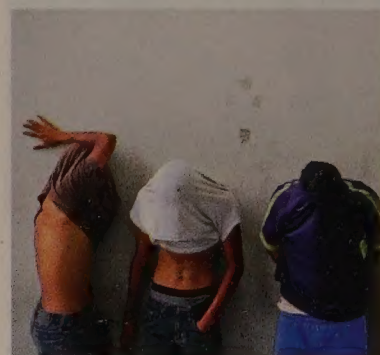
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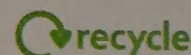
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Politics



Brazil's interim president, Michel Temer, appointed economic reformers to his cabinet after taking over from Dilma Rousseff, who has been suspended while the Senate conducts an impeachment trial. Henrique Meirelles, the new finance minister, proposed a constitutional amendment to give autonomy to the central bank he used to head and nominated Ilan Goldfajn, an economist, to lead it. All the new ministers are white men, making the cabinet the least diverse in many years.

A 60-day state of emergency was declared in **Venezuela**, giving the army and police wider powers. Police tear-gassed demonstrators calling for a referendum to recall President Nicolás Maduro from office and protesting against widespread shortages. Henrique Capriles, an opposition leader, said the army was faced with a choice of supporting the constitution or the president.

Mexico's president, Enrique Peña Nieto, proposed a constitutional amendment to legalise same-sex marriage.

Danilo Medina, the president of the **Dominican Republic**, declared himself the victor of the presidential election. His opponent accused Mr Medina's party of paying people not to vote.

Not helping relations

America's Senate unanimously passed a bill that would allow relatives of those killed in the **September 11th 2001** terror attacks to sue Saudi

Arabia over any alleged involvement in the plot. The official commission report into the attacks found no evidence of Saudi government involvement "as an institution". The bill now goes to the House. Barack Obama has said he will veto it, but given the wide support for the legislation Congress may have enough votes to override any veto.

California lifted its mandatory restrictions on residential water use following a wet winter. Local districts will now set their own rules.

Pfizer, America's biggest pharmaceuticals company, objected to the use of its drugs for **lethal injections** and restricted their sale to a select group of wholesalers to ensure they are used for patient care and "not for any penal purposes". Death-penalty states have found it increasingly difficult to find drugs to execute prisoners.

Hillary Clinton eked out a narrow win in the **Democratic** primary in Kentucky, but Bernie Sanders thrashed her in Oregon. Given Mrs Clinton's huge lead in the race Mr Sanders is under pressure to quit. But he shows no sign of backing down and some of his supporters threaten to disrupt the national convention.

Power play



Afghanistan's Hazara minority staged a big march in Kabul to protest against a plan to route a new electricity-transmission line away from two provinces with large Hazara populations. The government says homes in the two provinces will be adequately supplied with energy. It is the second such show of strength

by the Hazara in the Afghan capital in recent months.

Scores of people were missing and 350,000 were displaced in central **Sri Lanka** after heavy rains caused flooding and landslides. Southern India was put on high alert as the rains threatened to move north.

Safe, but not sound

One of the 219 schoolgirls abducted and enslaved more than two years ago in Chibok, **Nigeria**, has been found and returned to her family. The girls were kidnapped by militants from Boko Haram. Apart from those who escaped immediately, no others have been liberated.

Rwanda expelled 1,500 citizens of neighbouring **Burundi** as relations between the two countries frayed. Violence in Burundi broke out after its President Pierre Nkurunziza said in April 2015 that he would run for a third term in office. Burundi accuses Rwanda's government of supporting rebels and has expelled thousands of Rwandans.

America and other permanent members of the UN Security Council were preparing to allow weapons to be supplied to the internationally recognised government of **Libya** to fight Islamic State and other extremist groups.

At least 77 people were killed when four bombs exploded in Baghdad, the capital of **Iraq**. The bombs targeted mainly Shia neighbourhoods. Two were claimed by IS.

An **Egyptian** passenger jet en route from Paris to Cairo went missing over the Mediterranean with 66 people on board.

Not so funny

In **Germany** a court in Hamburg ruled that Jan Böhmermann, a comedian, could not repeat parts of a poem he had recited on television which mocks Recep Tayyip Erdogan, the president of Turkey, calling him a zoophile (among much else). Mr Böhmermann still faces the possibility of being

charged under an arcane German law which prohibits insults aimed at heads of state.

Three senior editors at RBC, an independent media group in **Russia**, were sacked. RBC covered the allegations from the Panama papers leak. Vladimir Putin's spokesman claimed that accusations of political pressure leading to the dismissals were "absurd".

The European Commission postponed a decision on fining **Spain** and **Portugal** for missing their fiscal targets. Spain will have until next year to bring its deficit down; Portugal will have to trim its this year. Unless both countries follow through, resentment towards seemingly profligate southern Europeans from voters in northern Europe will rise.

A deal was agreed between the British Medical Association, representing **junior doctors**, and the government, negotiating for the health service in England, in a long-running dispute over new contractual terms. Who has won is unclear. The government claims it has maintained its cost-neutrality aim; the BMA has a contract it feels serves doctors and patients. What is clear is that the new contract is as complicated as the old one.



The tradition of **tossing hats** in the air after graduation could be under threat in England, as a university said the practice presented an "unacceptable risk" to students and moved to ban it on health-and-safety grounds (it offered to superimpose the hats onto commemorative photos). Disappointed students griped that graduation celebrations will become as flat as their mortarboards. ►►

Business

The wave of consolidation continued in the agricultural seeds and chemicals business as **Monsanto**, a global group based in America, confirmed that it had received a takeover approach from **Bayer**, one of Germany's biggest companies. Last year Monsanto tried unsuccessfully to buy Syngenta; the Swiss firm is now in the process of being bought by ChemChina, a state-owned entity. Bayer's bid for Monsanto could run into regulatory problems, as could ChemChina's for Syngenta.

Berkshire Hathaway, the investment company led by **Warren Buffett**, disclosed that it had bought a \$1 billion stake in **Apple**. Four years ago Mr Buffett famously said that he avoided investing in technology companies because he wasn't sure how to value them. However, Berkshire's decision to take a bite of Apple was not taken by the 85-year-old but by his putative successors at the firm.

Meanwhile, **Apple** bought a \$1 billion stake in **Didi Chuxing**, a ride-sharing app and fierce competitor to Uber in China. The investment shores up Apple's position in China as it comes under increasing pressure from rivals producing low-cost smartphones. Didi's leading investors are Alibaba and Tencent, China's foremost internet companies.

Aye, robots

Underscoring the growing importance of robotics to industrial manufacturers, **Midea**, a Chinese maker of household appliances, launched a takeover bid for **Kuka**, a German pioneer in robotics and automation. Midea says it will buy more than 30% of Kuka's stock, at which point under German takeover rules it must make an offer for all the shares.

A month after its proposed merger with Allergan collapsed, **Pfizer** agreed to buy **Anacor**, a biotech company, in

a \$5.2 billion deal. Anacor has developed a new blockbuster treatment for eczema that is awaiting regulatory approval.

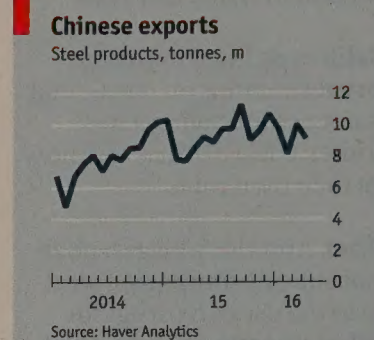
Gannett, the publisher of *USA Today* and a host of regional newspapers, increased its offer for **Tribune Publishing**, which counts the *Los Angeles Times* and *Chicago Tribune* among its titles, to \$864m.

Volkswagen's woes over its emissions-cheating scandal mounted when Norway's sovereign-wealth fund, the world's largest, said it would join one of the lawsuits being readied in Germany. The fund is the fourth-biggest investor in VW. It lost around \$600m in the value of its stake after the scandal broke.

Volkswagen is not the only carmaker to have come under fire for alleged wrongdoing. South Korea is fining **Nissan** for falsifying emissions tests, which the Japanese company denies. It recently took a stake in **Mitsubishi Motors**, which faces its own problems after admitting that it doctored fuel-economy trials in Japan. Mitsubishi's president stepped down this week. Also in Japan, **Suzuki Motors**, disclosed that it had not abided by fuel-economy rules.

Japan's economy grew by an annualised 1.7% in the first quarter, helped by the extra day in the leap year. It had shrunk in the previous quarter. The government is thought to be considering scrapping a forthcoming sales-tax rise to keep the economy on track.

Steely determination



America added further tariffs on **Chinese steel imports** to the ones it announced in March. The 522% duty applies to cold-rolled flat steel, which is used in the production of cars among other things. As its economy slows domestic demand for steel in China has fallen. But China is accused by America and others of saturating markets with cheap exports to keep its mills going while it restructures the industry, by cutting production by up to 150m tonnes a year, and of unfairly supporting steelmakers with tax rebates.

The Chinese government expressed "strong dissatisfaction" with America's decision.

Oil prices flirted with \$50 a barrel for the first time in six months. Prices have now risen by 70% since mid-January, boosted in part recently by attacks by militants on Nigeria's oil infrastructure, which have reduced the country's output. But the effects of plunging oil prices over the past two years continued to be felt. Moody's downgraded its credit rating for **Saudi Arabia** over concerns about its over-reliance on oil revenues.

Buoyed by bullion

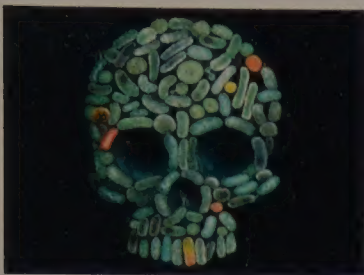
London's market in **storing gold** welcomed a new entrant when ICBC Standard Bank of China acquired a vault in the city from Barclays. The vault, in an undisclosed location, holds up to 2,000 tonnes of gold and other precious metals placed there by investors and governments. The move strengthens China's role in running the market's infrastructure. It accounts for a fifth of the world's demand for gold, but trading in the metal is based mostly in London and New York.

Other economic data and news can be found on pages 80-81



When the drugs don't work

How to combat the dangerous rise of antibiotic resistance



SOME people describe Darwinian evolution as “only a theory”. Try explaining that to the friends and relatives of the 700,000 people killed each year by drug-resistant infections. Resistance to antimicrobial medicines, such as antibiotics and

antimalarials, is caused by the survival of the fittest. Unfortunately, fit microbes mean unfit human beings. Drug-resistance is not only one of the clearest examples of evolution in action, it is also the one with the biggest immediate human cost. And it is getting worse. Stretching today's trends out to 2050, the 700,000 deaths could reach 10m.

Cynics might be forgiven for thinking that they have heard this argument before. People have fretted about resistance since antibiotics began being used in large quantities during the late 1940s. Their conclusion that bacterial diseases might again become epidemic as a result has proved false and will remain so. That is because the decline of common 19th-century infections such as tuberculosis and cholera was thanks to better housing, drains and clean water, not penicillin.

The real danger is more subtle—but grave nonetheless. The fact that improvements in public health like those the Victorians pioneered should eventually drive down tuberculosis rates in India hardly makes up for the loss of 60,000 newborn children every year to drug-resistant infections. Wherever there is endemic infection, there is resistance to its treatment. This is true in the rich world, too. Drug-resistant versions of organisms such as *Staphylococcus aureus* are increasing the risk of post-operative infection. The day could come when elective surgery is unwise and organ transplants, which stop rejection with immunosuppression, are downright dangerous. Imagine that everyone in the tropics was vulnerable once again to malaria and that every pin prick could lead to a fatal infection. It is old diseases, not new ones, that need to be feared.

Common failings

The spread of resistance is an example of the tragedy of the commons; the costs of what is being lost are not seen by the people who are responsible. You keep cattle? Add antibiotics to their feed to enhance growth. The cost in terms of increased resistance is borne by society as a whole. You have a sore throat? Take antibiotics in case it is bacterial. If it is viral, and hence untreatable by drugs, no harm done—except to someone else who later catches a resistant infection.

The lack of an incentive to do the right thing is hard to correct. In some health-care systems, doctors are rewarded for writing prescriptions. Patients suffer no immediate harm when they neglect to complete drug courses after their symptoms have cleared up, leaving the most drug-resistant bugs alive. Because many people mistakenly believe that human beings, not bacteria, develop resistance, they do not realise that they are doing anything wrong.

If you cannot easily change behaviour, can you create new drugs instead? Perversely, the market fails here, too. Doctors

want to save the best drugs for the hardest cases that are resistant to everything else. It makes no sense to prescribe an expensive patented medicine for the sniffles when something that costs cents will do the job.

Reserving new drugs for emergencies is sensible public policy. But it keeps sales low, and therefore discourages drug firms from research and development. Artemisinin, a malaria treatment which has replaced earlier therapies to which the parasite became resistant—and which now faces resistance problems itself—was brought to the world not by a Western pharmaceutical company, but by Chinese academics.

Sugar the pill

Because antimicrobial resistance has no single solution, it must be fought on many fronts (see pages 19-21). Start with consumption. The use of antibiotics to accelerate growth in farm animals can be banned by agriculture ministries, as it has in the European Union. All the better if governments jointly agree to enforce such rules widely. In both people and animals, policy should be to vaccinate more so as to stop infections before they start. That should appeal to cash-strapped health systems, because prophylaxis is cheaper than treatment. By the same logic, hospitals and other breeding grounds for resistant bugs should prevent infections by practising better hygiene. Governments should educate the public about how antibiotics work and how they can help halt the spread of resistance. Such policies cannot reverse the tragedy of the commons, but they can make it a lot less tragic.

Policy can also sharpen the incentives to innovate. In a declaration in January, 85 pharmaceutical and diagnostic companies pledged to act against drug resistance. The small print reveals that the declaration is, in part, a plea for money. But it also recognises the need for “new commercial models” to encourage innovation by decoupling payments from sales.

That thought is taken up this week in the last of a series of reports commissioned by the British government and the Wellcome Trust, a medical charity. Among the many recommendations from its author, Jim O'Neill, an economist, is the payment of what he calls “market-entry rewards” to firms that shepherd new antibiotics to the point of usability. This would guarantee prizes of \$800m-1.3 billion for new drugs, on top of revenues from sales.

Another of Lord O'Neill's suggestions is to expand a basic-research fund set up by the British and Chinese governments in order to sponsor the development of cheap diagnostic techniques. If doctors could tell instantaneously whether an infection was viral or bacterial, they would no longer be tempted to administer antibiotics just in case. If they knew which antibiotics would eradicate an infection, they could avoid prescribing a drug that suffers from partial resistance, and thereby limit the further selection of resistant strains.

Combining policies to accomplish many things at once demands political leadership, but recent global campaigns against HIV/AIDS and malaria show that it is possible. Enough time has been wasted issuing warnings about antibiotic resistance. The moment has come to do something about it. ■

The referendum craze

Let the people fail to decide

Putting big political issues directly to the voters is not more democratic, and usually gets worse results



REFERENDUMS are supposed to get citizens engaged in politics and make governments responsive. If they worked, Europeans ought to be feeling particularly satisfied with their democracies. For referendums are on the rise. Not counting

Switzerland, which has always run lots of them, big plebiscites are three times more common in Europe now than they were in the 1970s (see page 49). Britain is preparing one on withdrawing from the European Union. Dutch campaigners have just won a referendum against the EU-Ukraine association agreement, and plan to take on EU trade treaties with Canada and America. Italians are to vote on changing their constitution, and Hungarians on the EU's refugee-sharing scheme.

Despite this direct democracy, Europeans are alienated from politics and furious with their governments. Referendum-mania has not slowed the rise of populist, Eurosceptic parties which attack the establishment as corrupt and out of touch. Plebiscites meant to settle thorny issues instead often aggravate them: after Scotland's independence referendum failed in 2014, membership of the Scottish National Party quadrupled, suggesting another confrontation is coming.

Referendums, it turns out, are a tricky instrument. They can bring the alienated back into politics, especially where the issues being voted on are local and clear. On rare occasions they can settle once-in-a-generation national questions, such as whether a country should be part of a larger union. But, much of the time, plebiscites lead to bad politics and bad policy.

The most problematic are those on propositions that voters do not understand or subjects which are beyond governments' control. In 2015 Alexis Tsipras, prime minister of Greece, called a referendum on the bail-out offered by his country's

creditors. His citizens—many of whom did not realise that refusal meant default—voted no. Mr Tsipras had to take the deal anyway, exacerbating the public's cynicism about politics.

Plebiscites that ask a country's voters what they think of a policy set by other countries often disappoint. The Dutch rejected the EU-Ukraine agreement, but may be stuck with much of it unless the EU's other 27 members agree to changes. Switzerland does domestic referendums well, but is in hot water over one that restricts immigration from the EU. That requires changes to its trade deal with the EU; Brussels will not budge.

Because referendums treat each issue in isolation, they allow voters to ignore the trade-offs inherent in policy choices and can thus render government incoherent. California, which has had referendums for a century, has been crippled by voters' simultaneous demands for high spending and low taxes. A second danger is that fringe groups or vested interests use referendums to exercise outsize influence, particularly if few signatures are needed to call one and voter turnout is low.

Votey McVoteface

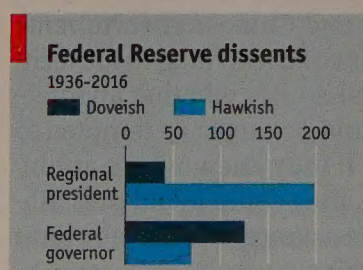
These dangers can be mitigated. Requiring minimum turnouts can guard against the tyranny of the few. (Italy's 50% threshold is about right.) But the bigger point is that plebiscites are a worse form of democracy than representative government. James Madison was right when he wrote that democracies in which citizens voted directly on laws would be torn apart by factions. The founders of democratic states created parliaments for a reason.

Today's fashion for plebiscites has similarities to the optimism of the early internet age, when everyone thought that more communication meant better democracy. Social-media echo chambers and armies of trolls hired by repressive governments have cured that illusion. More scepticism is warranted about referendums, too. Fewer would be better. ■

Federal Reserve

The right kind of reform

America's next president should modernise the Federal Reserve system



PERHAPS it was inevitable in the aftermath of the worst financial crisis in almost a century, but America is boiling over with schemes to remake the Federal Reserve. Some Republicans want the central bank's monetary-policy decisions to be

"audited" by the Government Accountability Office, an arm of Congress. Others wish to use a formula to put monetary policy on autopilot and to haul the chairman in front of Congress every time the Fed steps in. The most extreme sceptics peddle conspiracy theories about how the Fed "debases" the dollar.

They propose abolishing the central bank entirely.

Any of these schemes would be disastrous—either because they would jeopardise the central bank's independence, or because they would cast monetary policy adrift.

Fortunately, the likely presidential candidates have no desire to "end the Fed". Donald Trump says he might replace Janet Yellen, the Fed's chairman, with a Republican when her term ends. That would be unwise, but hardly revolutionary. Hillary Clinton wants to change the rules about who sits on the boards of the 12 powerful regional banks in the Fed system.

She is right. The Fed is not broken, but it is anachronistic. The system of regional Feds gives commercial banks influence over their regulators and dishes out public money to their priv- ►►

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The Federal Reserve system, created in 1913, owes a lot to the efforts of Carter Glass, who gave his name to the more famous Glass-Steagall Act, which separated investment banking from the duller retail kind. Thanks to his efforts, the country has not one monetary authority but a network of regional banks overseen by a board of governors in Washington, DC.

Glass's aim when founding the Fed was to avoid giving too much economic power to Washington bureaucrats. The regional banks would be like the states, while the board of governors would be like Congress. To placate bankers who wanted the government to stay out of their business, banks would themselves capitalise each regional Fed and appoint two-thirds of its directors. The directors would, in turn, elect a president who, on a rotating basis, would assume one of five voting seats on the FOMC, the committee that sets interest rates for the whole country. Such sops were necessary in part because, until 1980, membership of the Fed system was voluntary.

The sops are still being dished out today. The system provides sweetheart deals to banks, most of which earn a risk-free 6% annual dividend on their compulsory investments in the regional Feds. This is more than three times what the government currently pays for capital on the ten-year debt market. Although the dividend was recently cut for the 70 largest banks, roughly 1,900 smaller banks in the Fed system, which also own part of the regional Feds' stock, continue to benefit. Banks holding shares issued before 1942 receive their dividends tax-free.

The most important job of a regional Fed is to oversee the banks in its district. As a result, Glass's system comes perilously close to letting bankers serve as their own regulators—not so much a revolving door between Wall Street and government,

as a shared executive suite. The bankers who sit on the boards of regional Feds are not directly responsible for regulation and they no longer vote for a regional Fed's president, but banks appoint outside directors who do. And bankers can take part in a vote to dismiss a regional-Fed president.

This is all the more worrying since political gridlock has given the regional Feds growing representation on the FOMC. The system is designed so that the Washington board of governors, which is appointed by the president and confirmed by the Senate, has a majority. But the White House has filled vacancies slowly, in part because of an unco-operative Senate—which in 2010, for instance, decided that Peter Diamond, a Nobel-prize-winning economist, was unqualified for the job. Hence, for most of Barack Obama's presidency, regional Feds have matched governors in voting power. This matters because banks tend to profit from higher interest rates. Regional-Fed presidents tend to be the most hawkish members of the FOMC, as their dissenting opinions suggest (see chart).

Amend the Fed

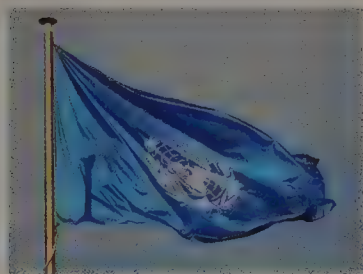
The next president can put this right by taking Mrs Clinton's proposal—and then going further. The private sector should be kicked out of the Fed entirely, the reserve banks capitalised with public money and the central bank's profit kept for taxpayers. The Fed would not want for expertise without bankers on its regional boards: it already hires plenty of ex-bankers and can always consult the firms it regulates.

Some fear that any reform attempts would provide an opening for all those other barmy ideas. That is not an idle worry. But private-sector involvement in the Fed arms the critics and conspiracy theorists. It reinforces the corrosive notion that self-serving elites write economic policy. In the long run, reform would protect the Fed from undesirable meddling. ■

The UN

Get the best

A soggy consensus holds that the next UN boss should be an eastern European woman. Nonsense



THE UN is often accused of meddling, only to be called upon when disaster strikes—and then blamed for not stepping in sooner. Sometimes the sneering is deserved. The UN is unwieldy, and hamstrung by big-power rivalries and small-power greed. Yet it matters. It is often the only outfit that can get combatants round a table and go into the most dangerous places. That can make the difference between life and death.

So it matters, too, who is the UN's secretary-general. The job was described by the first to hold it as the "most impossible...on this earth". Yet the person in charge can affect the lives of some of the world's least fortunate, which is why the next incumbent must be the best on offer (see page 54).

The idea has taken hold that a woman should get the job, because none has done it before; and that she should be from eastern Europe, because that part of the world has never had the honour. Several eastern European women qualify as candidates. But if one of them succeeds it should be because of her

ability, rather than her gender or her home country.

Whoever is chosen will have to tackle grave problems. The UN is bloated, seemingly unaccountable, dogged by bureaucracy and tangled in institutional rivalries. Its main aims—to make peace, to save the poor through economic development and to promote human rights—should reinforce each other, but are often opposed. Too many subsidiary agencies and programmes overlap and should be closed down. America and other rich countries pay more than they should. Countries that were once poor or supplicant, such as China and India, pay too little. Too many jobs, at the top and bottom, are handed out by regional bargaining rather than merit. Too few people are fired. Sexual abuse by peacekeepers and corruption in procurement have been dealt with too lightly. The secretary-general is, among other things, the "chief administrative officer". The organisation needs a good kicking.

But his—or her—biggest challenge is to stop people killing each other. The UN has 16 peacekeeping missions across the world. Often they are devilishly hard, as in Congo, where peacekeeping is undercut by local politics and corruption (see page 55). The task has grown because the UN's responsibility ►►

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► to protect civilians, enshrined in 2005 through the good office of the secretary-general of the day, Kofi Annan, means that it can intervene in conflicts within countries as well as those between them. This responsibility was invoked in 2011 over Libya, prompting grumbles, especially from Russia, that the Western sponsors of action there were stretching the mandate. This, in turn, has prevented the UN from agreeing to act more robustly over Syria.

Miracle-workers please apply

The outgoing secretary-general, Ban Ki-moon, whose term finishes at the end of this year, is widely regarded as a failure in both administration and governance. In his defence, he has tried to streamline the multiplicity of UN bodies, for instance welding four agencies promoting women's rights into one. He is credited with overseeing a climate-change deal in December in Paris and a global agreement on development goals a few months earlier. Moreover, no secretary-general can weave magic in places like Syria if the world's main powers are at loggerheads, as America has been with Russia. But whereas Mr

Annan used a mixture of cunning, courage, charm and idealism to bring antagonists together and pick up the pieces after disasters such as Iraq, Mr Ban has been plodding, protocol-conscious and loth to stand up to the big powers.

Whoever succeeds him will find the job hard enough. A Bulgarian front-runner, Irina Bokova, was a diplomat for the former communist regime; America may object. If she bows out another Bulgarian, Kristalina Georgieva, the EU's respected budget boss, would be better.

But it makes sense to spread the net as wide as possible. What about António Guterres, a former UN commissioner for refugees, or Helen Clark, who leads the development programme? Both are successful ex-prime ministers (of Portugal and New Zealand), who have run their UN briefs well: Ms Clark was undiplomatic, and brave, in pruning staff and budgets. Other candidates may appear. Most tantalising is Angela Merkel, Germany's chancellor—and, as it happens, an eastern European woman—though few think she would exchange her present burden for one in the UN's New York headquarters. If she did, *The Economist* would be glad to endorse her. ■

Virginity tests

Hands off

So-called virginity tests are nonsensical, degrading and still too common



WHAT does it take to be a good soldier? Courage? Loyalty? Respect for the Geneva Conventions? Yes, yes, but for the Indonesian army, if a new recruit is a woman, she must also be a virgin. Those who have sex before marriage are immoral,

top brass insist, and so cannot be trusted to defend the country. Also, male officers might wish to marry their female comrades-in-arms, so it is essential that they be pure. Hence the “virginity tests” to which new recruits are subjected: doctors check to see if their hymens are intact.

Until recently, virginity tests were also compulsory for female police officers in Indonesia. Senior officers say they were ended last year, after complaints from groups such as Human Rights Watch. But there are worries that, at least in some parts of the country, they have been rebranded as “reproductive-health tests” (see page 34). Fear of undergoing such a test is one reason why so few Indonesian women have joined the police; only 3% of the force is female. And that means the police are less good at protecting women, many of whom are reluctant to report rape or domestic violence to a male officer.

Unscientific, unethical, underreported

Virginity tests are unscientific—women's physiologies vary a great deal, whether or not they have ever had sex. More to the point, the tests are degrading and unnecessary. Whether or not a woman is sexually active has no bearing on her ability to aim a rifle or to perform any other job. Yet in many parts of the world virginity testing continues. Sometimes it is demanded by prospective husbands, which is bad enough. Sometimes it is sponsored by governments, which is worse. They do so for three reasons, all bad.

In some cases, the aim is to intimidate. In Iran, for example, Atena Farghadani, a dissident cartoonist, was accused of “illegitimate sexual relations” because she shook hands with her male lawyer. She was then subjected to a “virginity and pregnancy test”. Egypt's security forces have carried out virginity tests on women arrested for taking part in anti-government protests. In 2011 a little-known general called Abdel-Fattah al-Sisi said such tests were necessary to ensure that female detainees could not subsequently accuse their jailers of raping them. Mr Sisi is now president of Egypt.

In other cases virginity tests are administered in the false belief that they provide useful evidence in criminal cases. A study in Afghanistan found that 90% of a sample of female detainees had undergone such tests, some as often as four times. Most had been accused of “moral” crimes such as non-marital sex, but some of non-sexual crimes such as theft. The Indian Supreme Court ruled in 2013 that virginity tests could not be used as evidence in rape cases, but some Indian courts still allow it, on the assumption that a woman who is used to sex is more likely to have consented to the sex act in question.

A third rationale is to encourage virtue and discourage vice, as defined by (usually male) traditionalists. Even when national governments ban or discourage virginity tests, local bigwigs sometimes carry on regardless. In the Indian state of Madhya Pradesh in 2013, district officials made hundreds of women undergo virginity tests before taking part in a mass wedding, although Indian law forbids this. Each year in South Africa, hundreds of young women have virginity tests before dancing for the Zulu king. And to curb the spread of HIV, a Zulu mayor has offered scholarships for female university students who present certificates of virginity.

Enough, already. Sex between consenting adults is none of the state's business. Virginity tests are pointless and traumatic. The time to end this outdated practice is now. ■

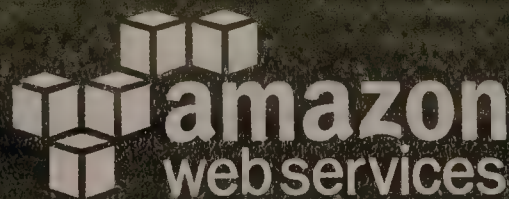
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A populist choice

You say that Donald Trump's idea of making America's allies pay for the "hegemonic protection" that America gives them is a "Roman vision of foreign policy" ("Trump's triumph", May 7th). You then assert that this is a "terrifying world-view" for people "who believe in the gains from globalisation and the American-led liberal order."

Could you explain these "gains" to the working men and women of America who believe they have been betrayed by their leaders and forsaken by the 21st-century's robber barons. "Globalisation" has been used as an excuse to lower the living standards of the working and middle class. Could you then justify why American taxpayers should be subsidising the defence costs of European and Middle Eastern allies.

Many in America believe, rightly or wrongly, that as crass as he is, as ill-mannered as he can be, and as untutored in the dark arts of the Beltway and international politics as he is, Mr Trump has a point and is their champion. No one, journalist or otherwise, has yet articulated conclusively just how it is that Mr Trump is, in their view, wrong.

BARRY VAUGHAN
Los Angeles

The real problem here is human nature and the susceptibility of voters to demagoguery. Modern culture, education and leadership sometimes fail in their role of protecting us from ourselves, from traits that have evolved to support our survival in primitive conditions but that seriously endanger us in a modern mass society. Such traits include tribalism and a reliance on the wonderful but error prone "System 1" thinking (based on instinct) that Daniel Kahneman describes in "Thinking, Fast and Slow".

The results are bizarre. We even find voters whose System 1 "gut feel" is titillated by Mr Trump's hatred, know his plans are wrong and dangerous, but who will vote for him

because they think he doesn't really mean it. In effect, they support this skilled politician because they think he is lying. This lazy mentality is a destructive decline into deep mediocrity, and no way to make America great.

PETER LOVELY
Portland, Oregon

A boom with a view



Regarding your call for Britain's capital to build more ("Little London", April 30th). If you stand on Hampstead Heath at the statutory viewpoint for St Paul's Cathedral, you can count 125 tall construction cranes on building sites in the city. The statutory view itself has already been seriously marred by the erection of the Shard building behind St Paul's and the cranes presage the transformation of the historic and famous London skyline into that of Kuala Lumpur or Bangkok.

But that is not enough for *The Economist*: what the capital now urgently requires is the destruction of the green belt. Just think how much affordable housing could be crammed onto the 400 acres (160 hectares) of Hampstead Heath after its 7m annual (NIMBY) visitors have been told to clear off.

A big part of the short-term solution to London's housing shortage lies in incentivising, or compelling, the use of its vast stock of existing but unoccupied residential property, a policy for which there is popular, but as yet insufficient, political support. In the most densely populated corner of the country, the green belt and open spaces in and around London—many preserved as the result of local campaigns

over two centuries—are what give its residents a quality of life that cannot be replicated in other major cities.

It is only the narrow ideal of economic growth at whatever cost that leads you to your reckless advocacy of the developers' case.

MARC HUTCHINSON
Chair
The Heath & Hampstead Society
London

Defending the underdog

Leicester City becoming champions of the English Premier League was a source of celebration and inspiration for almost everyone, except *The Economist* ("Underdogs are overrated", May 7th). We are warned not to let this example turn our heads; we should not have confidence in ourselves and not dream the impossible (we'll only end up being disappointed). The underdog is represented by the likes of Lance Armstrong, Donald Trump and North Korea, but curiously not by Mahatma Gandhi, Nelson Mandela or Aung San Suu Kyi. Our civilisation, you say, rests on certainties such as the understanding of nature through science and the delivery of justice through law, and not on the unexpected. You missed the mark.

Our civilisation, science and laws have all been forged by people who followed new paths outside received wisdom. The strength of science is its absence of certainty and its progress depends precisely on people who dream the impossible. It is hard to understand why you think we should stick with the status quo and follow the predictable path. Perhaps the unstated purpose concerns the Brexit debate? But no, I mustn't dream.

JASPER KIRKBY
CERN physicist
Geneva

You are right that a key factor underlining our prosperity is predictability and an underdog's success can be seen as undermining that. But surely a more plausible view is that a huge amount of the "expert" prediction with which we are

constantly barraged, even when widely shared, is wrong. Think Malthusian famine, the Marxist Utopia, the "end of history", the exhaustion of the natural resources of the planet, the 2008 crash and (currently) the end of the American century. Any underdog's triumph is a salutary, and Socratic, reminder of how little our experts really know.

SIR TONY BRENTON
Cambridge, Cambridgeshire

Leicester's win is a call to action for forecasters from all disciplines to review the inputs and analysis of their models and acknowledge the things they don't know when making predictions about the future. Maybe Brexit forecasters on both sides of the argument could learn from it as a cautionary tale and be more humble instead of declaring their rock-solid certainty of the future effect of an In or Out vote. However, I predict that this will not happen.

RUPERT SPIEGELBERG
London

A football match has no value if its outcome is not thrilling. If Arsenal were to win each match not even an oligarch would invest in a sport that would become as dull as a Soviet election.

ERIK CHRISTIANSEN
Saint-Mandé, France

"Making the world more predictable" is a predictably boring task. What is the point of prediction markets if all they forecast is the obvious? Leicester City and Donald Trump show that the world is full of unpredictable surprises, some nice, some not so nice.

JANET NELSON
Paris

You were obviously inspired by a spiteful Arsenal fan.

GIOVANNI MANFREDI
Rome ■

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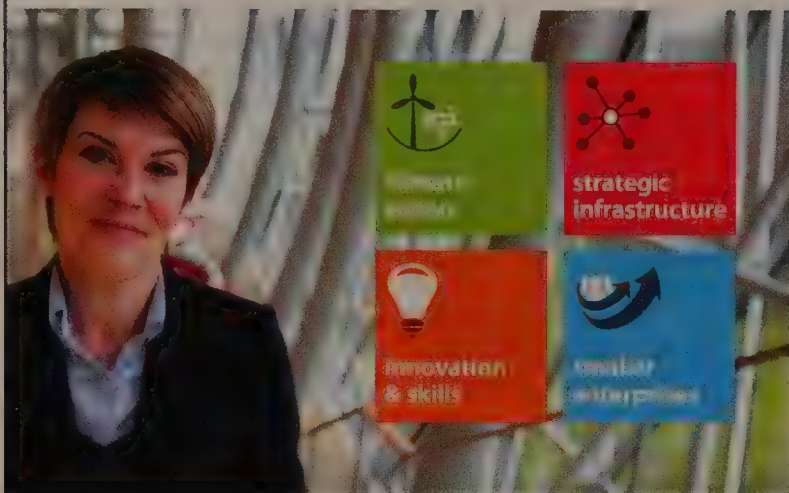
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The grim prospect

The evolution of pathogens is making many medical problems worse. Time to take drug resistance seriously

FEW, nowadays, would regard gardening as dangerous. But on March 14th 1941 a British policeman called Albert Alexander died of it. Early that year he had been scratched on the face by a rose. The wound became infected by bacteria, probably *Staphylococcus aureus* with an admixture of various *Streptococci*, and turned septic. The sepsis spread. First, he lost an eye. Then, he lost his life.

What made Alexander doubly unlucky was that he was almost cured. The hospital treating him, the Radcliffe Infirmary in Oxford, was a few hundred metres from a university laboratory where Howard Florey and Ernst Chain were brewing up extracts of a mould called *Penicillium chrysogenum*. Repeated injections of this extract came close to abolishing Alexander's infection, but the two scientists ran out of their home-brewed drug before the bacteria had all been killed. When the treatment stopped the sepsis roared back.

Penicillin is now available in copious amounts, as are other bacteria-killing antibiotics. A thorn scratch today seems a minor irritant, not a potential killer. But that may be too sanguine. A study by America's Centres for Disease Control (CDC) found that the number of cases of sepsis rose from 621,000 to 1,141,00 between 2000 and 2008, with deaths rising from 154,000 to 207,000. One reason for that is the emergence of MRSA (pictured being attacked by

a white blood cell)—a variety of *Staphylococcus aureus* that cannot be killed with methicillin, one of penicillin's most effective descendants. This could just be a taste of things to come. Three years ago the CDC produced a list of 18 antibiotic-resistant microbes that threaten the health of Americans (see table on next page). Five of them (including MRSA) cause sepsis.

When people hear about antibiotic resistance creating "superbugs", they tend to think of new diseases and pandemics spreading out of control. The real threat is less flamboyant, but still serious: existing problems getting worse, sometimes dramatically. Infections acquired in hospital are a prime example. They are already a problem, but with more antibiotic resistance they could become a much worse one. Elective surgery, such as hip replacements, now routine, would come to carry what might be seen as unacceptable risk. So might Caesarean sections. The risks of procedures which suppress the immune system, such as organ transplants and cancer chemotherapies, would increase.

Such worsenings would not be restricted to hospitals. "Multi-drug resistant" and "extensively drug resistant" strains of tuberculosis cause 200,000 deaths a year, mostly in poor countries. Most people who die of tuberculosis at the moment do not die of one of these strains. But they are responsible for more than an eighth of fatal

cases, and those cases might otherwise be susceptible to treatment.

Neisseria gonorrhoeae is another bug that has repeatedly developed resistance to antibiotics. When penicillin was first introduced it worked very well against gonorrhoea. When its effectiveness began to fall, it was replaced by tetracyclines. Those gave way to fluoroquinolones, and those, in turn, to cephalosporins. Now, some strains can be tackled only with a combination of ceftriaxone, a cephalosporin, and azithromycin, an azalide. There is nothing else in the locker.

If worries about microbial resistance are cast wider to include not just antibiotics (which attack bacteria) but drugs against parasites, like malaria, and viruses, like HIV, the problem multiplies, particularly in poor countries. In the case of malaria, resistance to drugs that kill the parasite responsible has been a problem for decades. Since the turn of the century deployment of a new medicine, artemisinin, has provided some respite. But now parasites resistant to artemisinin are turning up. And the same is true for first-line drug combinations against HIV, which go back to the 1990s. Such resistance can be dealt with by other medicines, kept in reserve for the purpose. But it still makes things worse, complicating treatment.

This trend is longstanding; Alexander Fleming, who first noticed penicillin's effects, warned of the dangers of resistance almost as soon as the drug had been shown to be a success. But the fact that these are old worries does not mean that they are not serious ones, nor that they cannot get worse. This week sees the publication of the final recommendations of a review on resistance to antimicrobial drugs led by Jim O'Neill, formerly chief ►

► economist at Goldman Sachs, on behalf of the British government and the Wellcome Trust, a medical charity. According to Lord O'Neill and his colleagues 700,000 people die each year from infection by drug-resistant pathogens and parasites. And they say that if things carry on as they are that figure will rise to 10m by 2050, knocking 2-3.5% off global GDP. Already the cost to the American health-care system of dealing with infections resistant to one or more antibiotics is \$20 billion a year.

Evolution in action

Drug resistance is a simple-to-understand, yet often misunderstood, phenomenon. Antibiotics mostly kill bugs by either blocking the synthesis of new proteins or interfering with the making of cell walls. Any variation in the bacteria's genome that makes one of these drugs a less effective killer will be of benefit to the bugs that have it, and as a result it will spread through the population. The genetic variation may change the bug's physiology, for example increasing the production of proteins that flush harmful molecules out of the bacterium. It may cause the production of an enzyme that destroys the drug. Or it may change the shape of the molecule that the drug is aimed at, making it less susceptible to damage.

Humans are not the first of Earth's creatures to want to kill bugs. Fungi don't make penicillin for fun, they do it to protect themselves from certain bacteria. The existence of these natural bug-killers has been a great help to human medicine; many of the 20-odd classes of antibiotic used medically are derived from them. But it also means that today's bugs are not facing entirely new threats. There are often resistance genes tailored to abiding threats lurking, at a low level, in bacterial populations, waiting for their hour to come.

When it does, the gene can spread to other bacteria quickly. Bacteria keep some of their genes on little loops of DNA called plasmids that can be swapped quite easily; think of them as programs on USB sticks. These plasmids allow resistance to pass not just from individual to individual but from species to species. (Genes that make diseases virulent can spread the same way.)

The genes needed for resistance can thus be quite readily available. But like any biological attribute, resistance is not a free good. Building extra bacterial bilge pumps or special drug-smashing enzymes costs a micro-organism energy and materials; changing the shape of molecules to make them drug-proof is likely to leave them working less well than they did. Simply copying the DNA of the resistance gene imposes a metabolic load. And different antibiotics require different resistance genes; the more a bug needs to use, the greater the costs. So resistance tends to be sustained at a high level only when actively provoked

Public enemies

Top 15 drug-resistant threats*, 2013

Threat	Selected effects
URGENT	
<i>Clostridium difficile</i>	diarrhoea, colitis
Carbapenem-resistant Enterobacteriaceae	multiple enteric problems
<i>Neisseria gonorrhoeae</i>	gonorrhoea
CONCERNING	
Multidrug-resistant <i>Acinetobacter</i>	hospital-acquired pneumonia
Drug-resistant <i>Campylobacter</i>	diarrhoea, dysentery
Fluconazole-resistant <i>Candida</i> *	oral and vaginal thrush
Extended-spectrum Enterobacteriaceae	multiple enteric problems
Vancomycin-resistant <i>Enterococcus</i>	urinary tract infection, meningitis
Multidrug-resistant <i>Pseudomonas aeruginosa</i>	sepsis
Drug-resistant non-typhoidal <i>Salmonella</i>	food poisoning
Drug-resistant <i>Salmonella</i> serotype Typhi	typhoid fever
Drug-resistant <i>Shigella</i>	dysentery
Methicillin-resistant <i>Staphylococcus aureus</i> (MRSA)	bacteremia (blood poisoning), sepsis
Drug-resistant <i>Streptococcus pneumoniae</i>	bacteremia, meningitis, pneumonia, sepsis
Drug-resistant <i>Mycobacterium tuberculosis</i> (MDR & XDR)	tuberculosis
CONCERNING	
Vancomycin-resistant <i>Staphylococcus aureus</i>	bacteremia, sepsis
Erythromycin-resistant Group A <i>Streptococcus</i>	bacteremia, pneumonia, sepsis
Clindamycin-resistant Group B <i>Streptococcus</i>	neonatal infections

Sources: CDC; The Economist

*All bacterial except *Candida*, which is a fungus

by the presence of the drugs in question. That leads to an important corollary: expose the bacteria to fewer drugs and resistance should abate.

This is where the aforementioned misunderstanding comes in. The public tends to think that it is the person taking the drugs who becomes resistant to their effects, not the microbes. Last year research published by the World Health Organisation showed that three-quarters of people in poor and middle-income countries misunderstood the problem that way. A survey carried out earlier in 2015 by the Wellcome Trust suggested a similar prevalence of misunderstanding in Britain.

Such ignorance has consequences. If you know that resistance is an attribute of the bacteria, then using drugs rarely but definitively makes sense. Do not use them when not needed; when you do use them, use them in such a way as to kill off all the bacteria, rather than leaving behind a small resistant rump. If you mistakenly think resistance is an attribute of people, on the other hand, you will have no compunction about using antibiotics, provided they seem to have some effect. And you will not think twice about stopping the course when the symptoms subside, rather than carrying it on until all the bacteria are gone. These problems are at their worst in places where antibiotics are easily bought over the counter.

Lord O'Neill argues that public-awareness campaigns might put things right. But this seems a little optimistic. Even when prescriptions are needed and experts are involved things still go wrong. In America

some 40m people are prescribed antibiotics for respiratory problems every year. In 2013 a paper published in the *Journal of Antimicrobial Chemotherapy* estimated that two-thirds of those people may well not have needed the antibiotics they got.

Some of this is down to "pester power": having gone to the doctor, a patient wants something tangible to show for it, even if his sore throat is probably viral and antibiotics will do him no good. Sometimes, though, it is the other way around. If a doctor cannot be sure of the cause, prescribing an antibiotic may help. The real chance of healing a specific person outweighs the imperceptible increase to the threat of bacterial resistance.

Know your enemy

This suggests one way to reduce the development of resistance would be to have diagnostic kits that ruled bacterial infection in or out on the spot. Such kits would have to be very quick, cheap and convenient indeed to supplant pre-emptive antibiotics. But if they could also tell to which antibiotics an infection was susceptible they would increase their value. If a doctor were to know for sure whether a dose of gonorrhoea could be dealt with by penicillin—which is the case for as many as 80% in England and Wales—he would not have to prescribe more expensive antibiotics just in case; good for the purse and good for public health.

Resistance is not only encouraged and spread in medical settings. In many places, more antibiotics are given to farm animals than to people. In America 70% of those

sold end up in beasts and fowl. Some of this is to treat disease; most is not. For reasons only dimly understood, many animals put on weight faster when fed these drugs. A lot of these drugs pass into the soil and watercourses, where they further encourage resistance. The bacteria that become resistant this way are unlikely to be human pathogens. But their resistance genes can quite easily get into bugs that are.

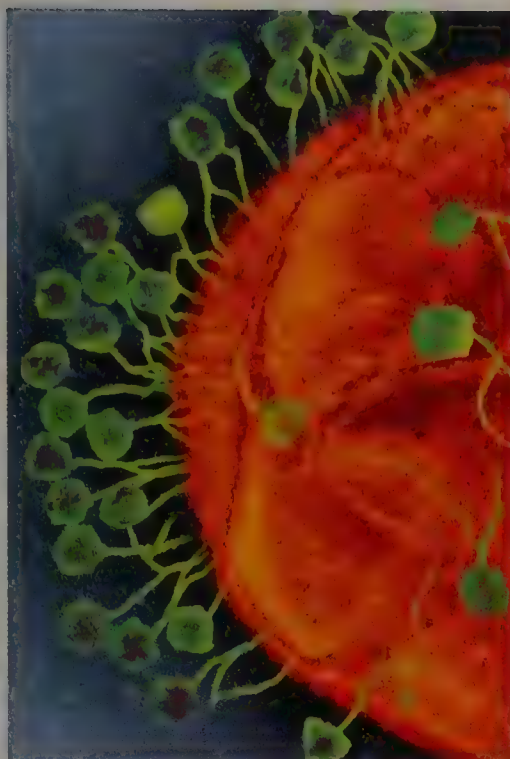
Some of the antibiotics farmers use are those that doctors hold in reserve for the most difficult cases. Colistin is not much used in people because it can damage their kidneys, but it is a vital last line of defence against *Acinetobacter*, *Pseudomonas aeruginosa*, *Klebsiella* and *Enterobacter*, two of which are specifically mentioned on the CDC watch list. Last year bacteria with plasmids bearing colistin-resistant genes were discovered, to general horror, in hospital patients in China. Agricultural use of colistin is thought to be the culprit.

The cost of banning antibiotics as growth enhancers would not be great: an American government study suggests it might reduce the bottom line of those who currently use them by less than 1%. The European Union has already enacted such a ban. Despite practical difficulties—the difference between a growth-enhancing dose and a veterinarily defensible prophylaxis may often be in the eye of the beholder—more should follow.

Lord O'Neill favours such prohibitions. He also likes the idea of using more vaccination to head off the need for treatment, both in livestock and in people. Hospital hygiene is another focus; there is some evidence that staff are more careless about cleanliness than they were in pre-antibiotic days, when they saw deaths like Albert Alexander's on a more regular basis.

All these steps would make existing antibiotics more effective; another approach is to create more such drugs, or their functional equivalents. In the decades after penicillin came to market drug companies fell over each other to develop new antibiotic molecules. Since then, interest has waned. The pipeline of potential new products at various stages of clinical trial is barely 40 strong. Only a fraction of them will reach market; each will represent a big investment (see chart 2).

There are reasons for drug firms not to invest in antibiotics. Such companies increasingly prefer treatments for chronic diseases, not acute ones; the customers stick around longer. And despite the growing problem of resistance, most antibiotics still work for most things most of the time. Given that the incumbents are also cheap, because they are off-patent, new drugs cannot earn back their development costs. Even if they could, it would be poor public policy to let them; much better for new drugs to be used only sparingly, to forestall the development of further resistance.



Whatever happened to the phage way?

That further puts the kibosh on sales.

Some of the gap might be plugged by reviving old drugs that have fallen out of use; drugs bugs have not recently seen are drugs they are less likely to be resistant to. Another possibility is to revamp the incentives, rewarding the development of antibiotics destined to sit behind "use only in emergency" glass. The O'Neill report suggests one-off payments of between \$800m and \$1.3 billion to firms that develop drugs which meet predefined criteria of unmet need, to be paid on top of sales revenue. At this year's meeting of the World Economic Forum in Davos, 85 companies said that if governments offered them money with such conditions attached they would do everything they could to earn it.

It is possible, though, that the problem goes deeper than incentives. Some think the supply of raw materials for research—molecules capable of being turned into antibiotic medicines—may itself be close to

exhaustion. The intensive efforts of the mid-20th century may have more or less emptied nature's store.

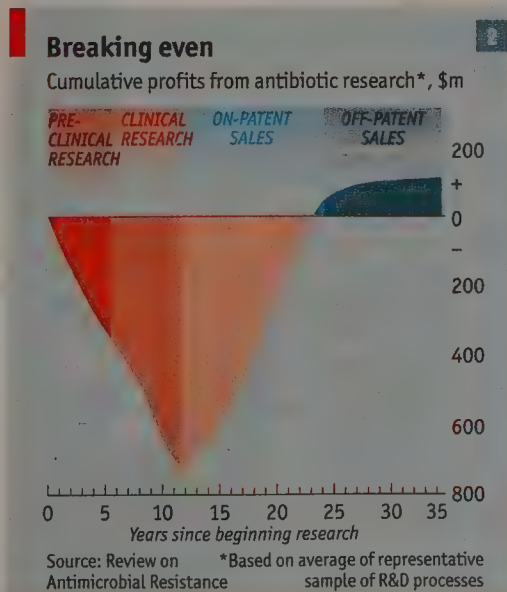
In the late 1990s established drug companies and biotech startups ransacked then-revolutionary genome sequences from bacteria for targets against which they could screen chemicals by the zillion in the search for new drugs. According to David Payne, a researcher at GlaxoSmith-Kline who wrote about this gold rush last year, his firm looked at 70 apparently promising targets this way. On the basis of experience in other therapeutic areas the company expected to find almost as many "lead compounds"—molecules that looked worth the effort of taking further—as it had targets. Instead it came away with six. Given the attrition rate for lead compounds in subsequent development the whole undertaking was pretty-much wasted effort.

Today's far more powerful genomics might tell a different story, but it seems wise to look at alternative approaches. One possibility would be to use specially formulated antibodies, instead of conventional "small-molecule" drugs. On the plus side this could provide weapons bacteria have never come across before (yeasts and other microbes do not make antibodies). On the minus side, therapeutic antibodies tend to be very expensive.

Another option is to co-opt viruses, known as bacteriophages, that prey on bacteria. Bacteria have defences against phages, just as they have resistance genes against natural antibiotics (indeed, biotech's hot new genome-editing tool, CRISPR-Cas9, is based on a system bacteria use to slice up the genes of viruses that attack them). Phages have been looked at as therapies for decades; better understanding of bacterial genomes may mean that they can now be used in more cunning ways than was previously possible.

There are also ecological approaches. Some bits of the body—notably the skin and the gut—are permanently and unproblematically inhabited by bacteria. There is some evidence that manipulating these native populations can make them less welcoming to outsiders. This approach has had early success against *Clostridium difficile*, the bug at the top of the CDC danger list. And there are also drugs that might be aimed at the patient, not the bug, in an attempt to make his immune response more appropriate and effective.

These possibilities show that there is no reason for panic. But there is strong reason for action. Florey and Chain were motivated by a crisis: sepsis took a heavy toll among the wounded of the second world war. Today's steady worsening is no crisis; this war is a subtle one, to be fought on behavioural, regulatory and economic fronts, as well as medical ones. But war it nevertheless is. An appropriate response is called for. ■

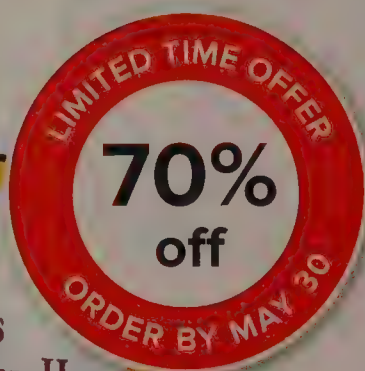
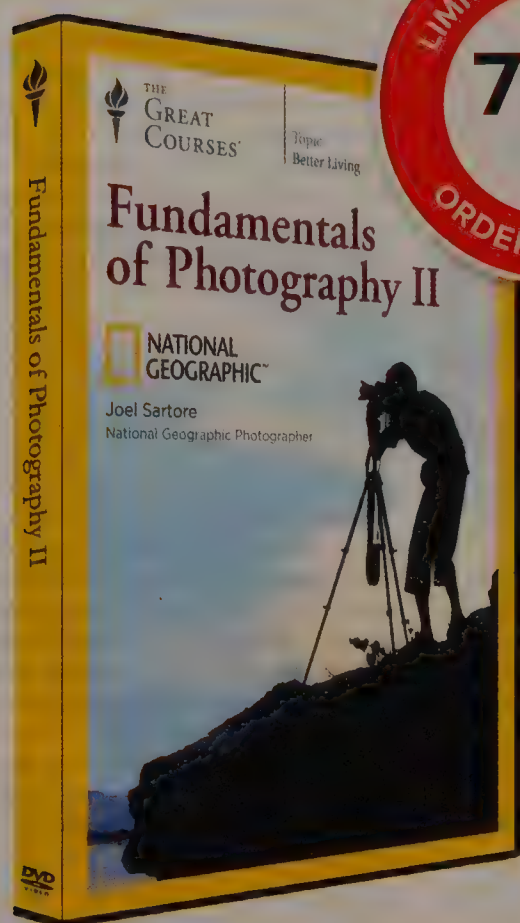




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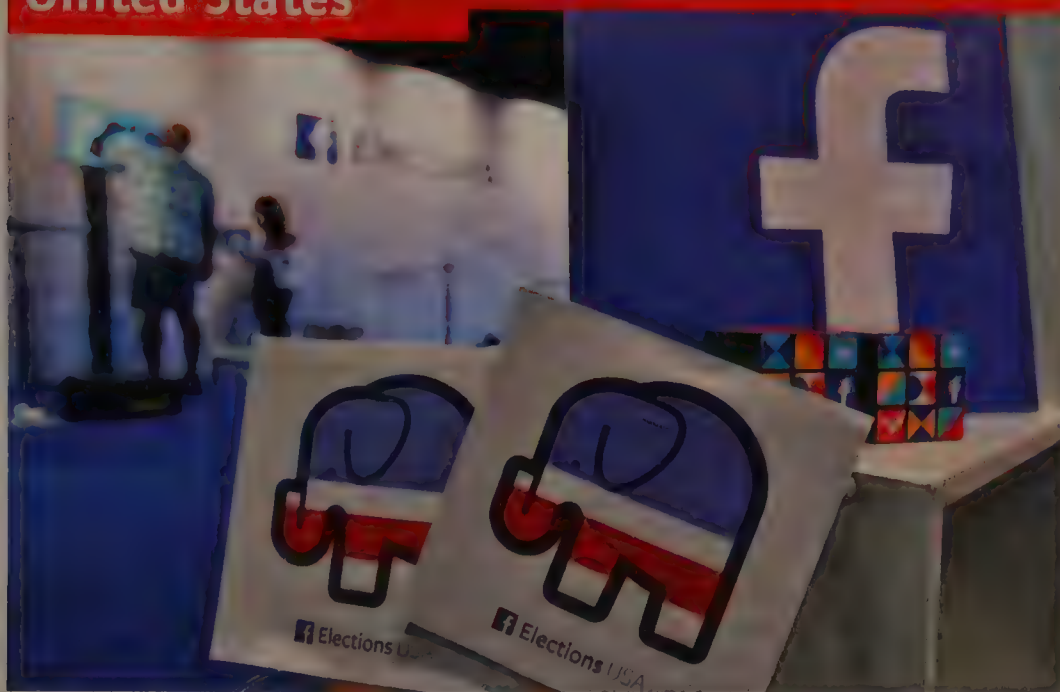
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Facebook and politics

Censors and sensibility

SAN FRANCISCO

The social network's power has made it controversial with conservatives. But its importance to politics will continue to grow

WHY does a company that “allowed voices to be heard in Iran and Egypt ...silence the voices of anyone here?”. Glenn Beck, a conservative commentator, asked that question recently in a post (published on Facebook, of course). On May 18th he and a handful of other conservatives met Mark Zuckerberg, the boss of the world's most popular social network, to discuss reports that Facebook has stopped conservative news being prominently displayed on the platform. Mr Zuckerberg denies bias. John Thune, a Republican senator, has asked Facebook to submit more information about how it ranks topics and posts by May 24th.

Such disquiet about liberal bias reflects long-running mistrust between conservatives and Democratic-leaning Silicon Valley. It is overblown. The alleged censorship concerns a feature on Facebook's desktop version called “trending topics”, which relies on curators to help select the news items to highlight in one section of Facebook. It does not apply to the personalised, central “newsfeed”, where users spend most of their time and where content is chosen by algorithms. The social network's priority is to get people to spend as long as possible on Facebook, which means showing the most relevant content to each user. The more time people spend, the more ads Facebook can sell. It has no interest in alienating conservative users.

Yet the hullabaloo points to an indisputable fact: Facebook is a juggernaut, with growing political influence. The social net-

work has 1.6 billion monthly users, around 200m of them in America. On average, Americans spend 30% of their mobile-internet time on Facebook's platforms, which include Instagram and WhatsApp. Around 90% of American adults who use Facebook pass the equivalent of two work-days a month on the social network. Facebook is no longer just a destination for virtual socialising but a media company that can shape public opinion.

Facebook can transform people's moods and political behaviour. One study, published in 2014, showed that users' moods could be influenced by whether the posts they saw on Facebook were joyful or depressing. Another study, published in *Nature* in 2012, determined that around 340,000 people probably turned up to vote in the congressional elections of 2010

Barack and 12 others liked this

Spending on advertising for all US political races* \$bn



Also in this section

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because of a message they saw on Facebook, and were especially likely to do so if a friend shared the call-to-action.

This week your correspondent spent more time than usual on Facebook, researching and procrastinating, and was targeted with an ad to register for next month's California primaries. Appeals to vote or donate money to a natural disaster are not uncommon. Mr Zuckerberg, who is 32, is an idealist and talks frequently about connecting people, improving education and changing immigration policy. In public remarks last month he criticised “fearful voices for building walls and distancing people they view as others.”

Mr Zuckerberg is entitled to his own opinion, but his political views are unlikely to shape the news that the service offers to users. Like Google, which uses an algorithm to rank its results, Facebook has refined algorithms to generate a personalised newsfeed based on what they know about each user, with the goal of keeping them interested for as long as possible.

Whereas regulations stipulate that television networks cannot discriminate against advertisers (and have to offer the lowest rate to all candidates), no similar rules apply to Facebook or its digital peers. Facebook's opacity about how it ranks content and posts will continue to enrage those who suspect foul play. Politicians may put pressure on Facebook to reveal more about how its algorithms work. The firm is not required to do so. Users will have to take on faith—as they do with Google—that the company's business model limits the opportunities for bias.

Not choosing sides is vastly profitable, and Facebook stands to benefit by selling advertising to everyone. This year candidates in all elections (including local and state elections, not to mention the presidency) will probably spend more than \$1 billion on digital advertising (see chart), more than 50 times what they spent in

► 2008, according to Borrell Associates, which tracks marketing spending. Facebook, along with Google, stands to capture the lion's share of that.

Although Barack Obama's victory in 2008 was called the "Facebook election", it is this year's race that will prove Facebook's real power. In 2008 political posts on social media spread virally, and Facebook did not have the ability to sell highly targeted ads. Today it does. Candidates can upload their voter lists and find people they are trying to reach on Facebook, or create groupings of people who are similar to those they want to reach—say, female independents in a swing state who care about education. Ted Cruz's campaign in Iowa identified 167 different categories of voters it wanted to target, based on their assumed political priorities and, apparently, their personalities. "It allows us to reconnect with an electorate that has become cynical about advertising because it's become overly generic," says Chris Wilson, who worked on Mr Cruz's digital efforts.

Political advertising on digital channels can be preferable to spending huge sums on television, where there is no way to see if anyone watched the ad and it is harder to target specific groups of people. Facebook has already made a difference in recent elections abroad, including in Canada and Britain. Jim Messina, a leading Democratic strategist who also worked on David Cameron's re-election campaign, claims that Facebook is "more than seven times more effective at converting undecided voters than direct mail".

The shift towards tailored digital ads, which Facebook and Google have led, may be good for campaigns that want to reach specific people. So too may the rise of personalised feeds of information online, which users enjoy. But both trends raise some troubling questions. If the future of political advertising is more direct, highly targeted ads, people who are unlikely to vote may be ignored, because they are not deemed worth paying to reach. "We don't think it's weird if a company only targets white people or black people if that's who their customers are. But if a political campaign does that, it feels creepy," says Eitan Hersh, a professor at Yale who has written a book called "Hacking the Electorate".

Facebook and platforms like it may make it even easier for campaigns to say different things to different voter groups, without anyone noticing. And as more people spend time on networks that feed them only news that confirms their worldview, it furthers the ideological fragmentation America already suffers from. "The paradox of social media", says Don Baer of Burson-Marsteller, a communications firm, "is that we are able to reach more and more people in ways that appeal to each of them individually, but less able to reach people as citizens of one country." ■

Feuding Democrats

Hillary's heartbern

WASHINGTON, DC

Bernie Sanders can't win but won't quit

AS VICTORY laps go, Hillary Clinton is having a stinker. The former secretary of state has all but won the Democratic primaries; there is no serious chance that Bernie Sanders can close her sizeable delegate lead before the contest ends in Washington, DC, on June 14th. Yet the Vermont senator's persistence, demonstrated by his 21st victory, in Oregon on May 17th, is making her look weak and her party divided.

The alacrity with which Mrs Clinton trumpeted an ignobly small win in Kentucky on the same day was another indicator of that. She had originally been expected to win Kentucky with ease. Yet Mr Sanders's victories in neighbouring Indiana and West Virginia gave the lie to that. Many Kentuckians took umbrage at her perceived insensitivity to the sufferings of the state's miners, after she appeared to welcome—as most Democrats do—the demise of America's coal industry. She duly lost big in Kentucky coal country and won the state by less than 2,000 votes.

These twin primaries encapsulate the latter stage of the Democratic campaign: bad headlines for Mrs Clinton but, because the Democrats distribute their delegates in proportion to vote share, a tiny net advantage for Mr Sanders, which changes nothing. This dreary cycle, as far as Mrs Clinton is concerned, followed even more damaging events in Nevada on May 14th, when a crowd of Sanders supporters hurled chairs

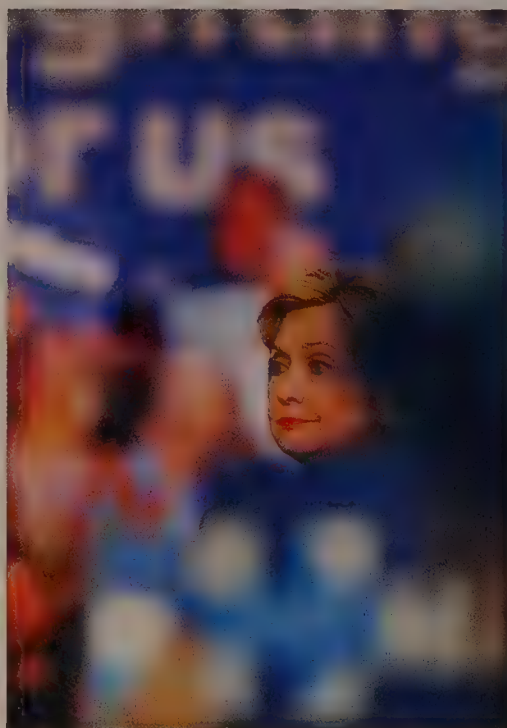
and abuse at Democratic officials whom they accused of fixing the selection of delegates to the Democratic National Convention to her advantage. Invited to condemn his supporters, Mr Sanders denounced the violence but said he agreed the process had been fixed—a response Debbie Wasserman Schultz, a Democratic bigwig, called "anything but acceptable".

There is little doubt that Mrs Clinton is being hurt by this protracted rowing. Her victory is apparent; to defeat her, it would not be sufficient for Mr Sanders to win most of the outstanding 781 delegates (which is anyway unlikely; 475 are up for grabs in California on June 7th and Mrs Clinton has a healthy lead there). He would also need to persuade many of the 525 senior Democratic officers, or superdelegates, who have endorsed her to turn coat, which is currently unimaginable. Yet Mrs Clinton has not seen the poll bounce presumptive nominees customarily enjoy—unlike her probable opponent in November, Donald Trump. In late March, she led him by over 11 percentage points in head-to-head polls; she now leads him by five points.

She would dearly like to concentrate her attention and resources on widening that gap. Instead it is Mr Trump who, having swept his opponents from the field, is free to depict her primary efforts to his advantage. "Crooked Hillary can't close the deal with Bernie Sanders. Will be another bad day for her!" he tweeted, pretty accurately as it would turn out, on May 17th. Mr Sanders's claim that the Democrats have fixed their rules in Mrs Clinton's favour is, in this context, especially damaging. It is just the sort of attack Mr Trump, a fellow outsider who hopes to win over many disgruntled Sandernistas, will use against Mrs Clinton in November.

If a Democratic victory then were his main concern, Mr Sanders would quit the race. Yet, celebrating his victory in Oregon, he vowed to fight on "until the last ballot is cast." You can see why he might. A former independent, he joined the Democratic Party only last year and has little love for it. A political nonentity for most of his career, he is also revelling in his success. He has won 40% of the Democratic vote and is harrying Mrs Clinton to the end. He hopes especially to make Mrs Clinton adopt his leftist agenda as, on May 10th, she showed signs of doing: she said she would expand Medicare, which he would make universal, at least a bit.

To leave an enduring mark on American politics, as opposed to the primaries, however, Mr Sanders might do better to try boosting his opponent's chances against Mr Trump. That would mean endorsing her fulsomely when he does admit defeat. Yet the longer he continues to fight and castigate her, as a representative of the unfair "status quo", the harder this will be. ■



Sandblasted

Homegrown jihad

Minnesota martyrs

MINNEAPOLIS

The largest trial of would-be jihadis casts some light on their motives

"I LOVE you and I am doing this for all of us." Ifrah Nur cries as she remembers a Facebook message from Abdi Nur, her younger brother, in Syria. He believed that the whole Nur family would go to heaven if he died a martyr as a fighter for Islamic State. Ms Nur says she has not heard from her brother for a year and half, and does not know whether he is dead or alive.

The testimony of Ms Nur on May 17th, in America's largest trial of people allegedly recruited by IS, was the most powerful of the statements from FBI agents, work colleagues and family members. Guled Omar (aged 21), Mohamed Farah and Abdirahman Daud (both aged 22), stand ac-

cused of conspiracy to commit murder outside America, which carries a maximum sentence of life in prison, and of conspiracy to provide material support to a terrorist organisation, which carries a maximum of 15 years. All three were in touch with Mr Nur, who went to join IS in May 2014. Six other young Somali-Americans have already pleaded guilty to trying to join IS.

The presiding judge, Michael Davis, launched an unusual experiment before the trial started. He recruited Daniel Koehler, the head of the German Institute on Radicalisation and De-radicalisation Studies (GIRDS), to assess six of the men to find out why they became radicalised and whether they might be open to a change of mind. Mr Koehler has so far met five of the six. "Some of them are very difficult cases, though I would never say impossible," he says. He is also training a group of Minnesota probation officers in how to change the minds of would-be jihadis.

Such an approach is necessary. Intention, rather than action, is often on trial in these cases, and that can be hard to prove.



Aspiring Timberwolves

Abdullahi Yusuf, the first participant in a jihadi rehabilitation programme, is part of Judge Davis's experiment. A day before his friend Mr Nur left the country, he tried to leave for Syria via Turkey but was stopped by FBI agents at the airport. He went back to community college and a job at Best Buy, a retailer, but was arrested in November 2014. In February Mr Yusuf pleaded guilty to intending to fight for IS. While awaiting sentencing he is receiving counselling from Heartland Democracy, a non-profit group. His mentor there is Ahmed Amin, a Somali-American who moved to America when he was 12 and teaches at Roosevelt High School. "Abdullahi is articulate, smart and comes from a stable family," says Mr Amin, who tries to see him at least every other week. "It's hard to understand how he could fall for IS."

Mr Amin has set his charge a reading list, which includes "Reservation Blues" by Sherman Alexie, a native-american writer whose protagonists struggle with a sense of powerlessness and alienation in a white society, and some works by Michel Foucault, a French post-modernist. There have been some setbacks with Mr Yusuf's re-education. Judge Davis had allowed him to move to a halfway house, but he had to return to jail after a box cutter was found under his bed. (He says it wasn't his.)

When Mr Yusuf took the stand to testify against his former friends, he repeatedly contradicted himself and had to own up to "a history of lying" when it was in his interest. A man in the audience whispered to Mr Yusuf's mother that her son was a spy. A disturbance ensued, and Judge Davis ordered scores of people to leave the courtroom. "The Somali community is deeply divided about the trial," says Mr Amin. Many are upset about what they see as government over-reach and harsh treatment of misguided young men. Others are aware that the trial is drawing attention to a problem among young Somali-Americans that they wish would go away. ■



The campaigns

Heard on the trail



Unhappy returns

"It's none of your business."
Donald Trump responds to a question about his tax rate. ABC News

In sickness and in health

"His own wife endorsed him".
Mr Trump's spokeswoman says the candidate has at least one woman's vote. CNN

Hold your enthusiasm

"It's not like 'none of the above' is a potential option."
Greg Abbott, governor of Texas, on why he'll support Mr Trump. MSNBC

Straight up with a twist

"Either way, I don't care. Hanging, shooting—I'd prefer [President Obama] be hung from the portico of the White House, or as I call it, the white mosque."
Anthony Senecal, Mr Trump's former butler. The Trump campaign quickly disowned him. CNN

Miller lite

"It was not me on the phone. And it doesn't sound like me on the phone, I will tell you that, and it was not me on the phone. And when was this? Twenty-five years ago?"
The Washington Post discovered a tape from 1991 that suggests Mr Trump posed as his own spokesman, John Miller. NBC

Bikram Donald

"No, I am not softening my stance...but I am always flexible on issues. I am totally flexible on very, very many issues."
Mr Trump is flexible. NBC News

Pick me, pick me (1)

"We're pretty busy, but we could certainly be lured into a new path."
Newt Gingrich continues his campaign to be Mr Trump's running-mate. Fox News

Pick me, pick me (2)

"It'd be Trump's best life insurance. The Zio NeoCon Mossad boys would not dare touch him if I was heartbeat from presidency."
David Duke, former Grand Wizard of the Ku Klux Klan, offers himself. Twitter

Makers and takers

"I don't think they sent a gift. Some people didn't send gifts."
Melania Trump rates the Clintons, who attended her wedding to the Republican nominee, as guests. DuJour

TransAm-bition

"I think I would have been the best president, but it was the right thing not just for my family but for me."
Vice-president Joe Biden, who ruled himself out in October, showing some Trumpian modesty. ABC News

Pretend medicine

The quack-up

The appeal of unproven alternative treatments is undimmed

WHEN Jim Laidler and his wife Louise, both doctors in Oregon, were informed that their two sons were on the autism spectrum, they were devastated. Conventional medicine offered no cure for the developmental disorder; intensive behavioural treatments might help, but they might not. Then the Laidlers heard about alternative therapies including chelation, a treatment in which patients ingest or are injected with chemicals that remove heavy metals from their bodies. The Food and Drug Administration had approved the technique for lead and mercury poisoning, but some doctors suggested it could cure autism. Mr Laidler was sceptical of some of the claims made by chelation champions, but he also knew science was fluid. Some treatments now accepted as standard once would have seemed outlandish. Besides, looking to alternative therapies allowed the Laidlers to feel something conventional medicine did not offer: hope.

Mr Laidler, who has since disavowed alternative autism interventions including chelation and special diets, recalls the

physical and financial strain of shuttling back and forth from treatments and travelling with suitcases full of special foods. When Mrs Laidler secretly took one of their sons off his supplement regimen and found no change in behaviour, he had an epiphany: what he had perceived as improvements due to treatment were really just natural fluctuations.

Alternative treatments have long seduced Americans. In the decades leading up to 1950, thousands submitted themselves to the high-voltage shocks of “violet-ray generators”. Essentially a suitcase kitted out with an electrical control box and coils, the machine was hawked as a panacea for ailments from heart disease to paralysis. Others relied on Micro-Dynameter machines, which claimed to identify disease by measuring the electrical currents coursing through the human body. It was later revealed that they could not differentiate between a live person and a cadaver. These devices, as well as foot-powered breast-enlargement pumps, metal pods promising rejuvenation, and the Relaxacisor, a machine that promised to slim and tone women’s bodies through electrical shocks while they lay idle, are displayed in a wing at the Science Museum of Minnesota dedicated to quackery.

Today alternative medicine is just as popular. A study by the Centres for Disease Control and Prevention in 2012 established that one-third of adults use some sort of alternative treatment, mostly in addition to

conventional medicine. The annual bill for such “complementary” interventions is about \$34 billion. Despite the fact that the great majority of alternative treatments are either unproven or known to be rubbish, the discipline has also become more intertwined with conventional medicine. A recent study showed that 42% of American hospitals provided some sort of alternative therapies, up from 27% in 2005. Georgetown University offers masters degrees in complementary medicine, and the University of Arizona trains its medical students in the practice.

The government is also more involved than it once was. In the 1990s, inspired by a senator who believed bee pollen had cured his hay fever, Congress created a new branch within the National Institutes of Health to study unconventional health practices. It was called the National Centre for Complementary and Integrative Health, and in the decade to 2015 it received over \$1.2 billion to investigate such questions as the health benefits of saunas and whether acupuncture works to alleviate pain related to fibromyalgia. Supporters of the centre say such trials will help sort out the effective treatments from the phoney ones. “We are looking at what the public is using—natural remedies and alternative pain treatments—and subjecting those to the scientific method to figure out what works and what doesn’t work,” says Dr David Shurtleff, the centre’s deputy director.

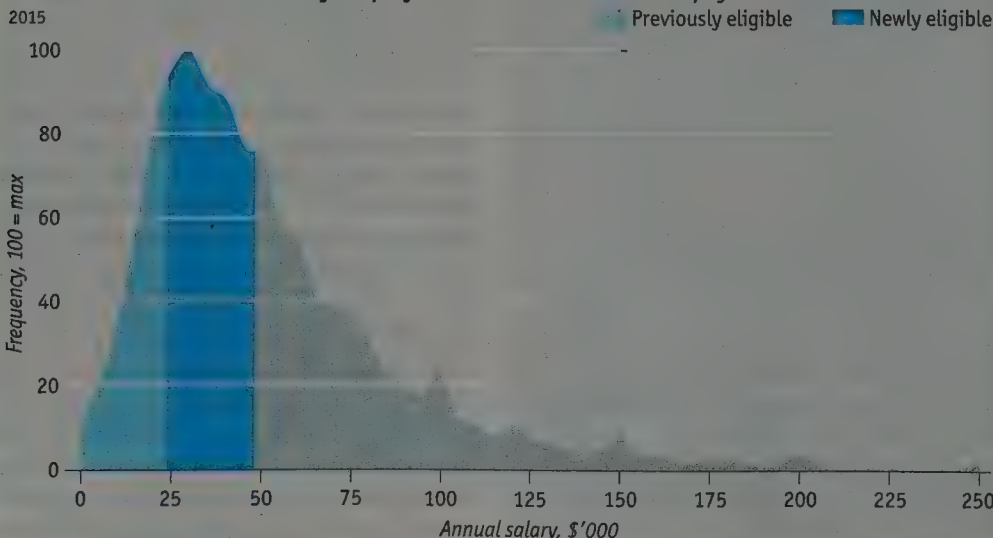
Stephen Barrett, a retired psychiatrist and director of quackwatch.com, believes the centre should be abolished. Chelation is the branch of quackery that most alarms him at the moment. He adds that the growth of misleading medical titles is also of concern. The Pastoral Medical Association in Texas licenses practitioners to provide “Bible-based” health services in 50 states and 30 countries. The requirements to obtain such accreditation are accommodating; many of the people listed in the association’s directory have no medical training and offer practices such as hair-mineral analysis and “raindrop therapy”, where patients are massaged with various oils meant to bring about “balance and electrical alignment”.

Sick people often seek help when they feel most ill. Like Mr Laidler, they may mistake the natural cycle of a condition for improvement caused by treatment. And while the web makes it easy for a layman researching crystal therapy (where a “healer” places small crystals at various points on patients’ bodies) to determine quickly that such a treatment has never been proved effective, it has also encouraged quacks. So long as they include disclaimers, anyone can slap up free websites offering treatments to help with baldness and pudginess, the flu and cancer. At best, people will waste money chasing such promises. At worst, they could get hurt. ■

Overtime pay

Currently, employees earning over \$23,660 are not eligible for overtime pay, a mandatory 50% wage bump for work in excess of 40 hours per week. Inflation has put most over this level: in 1975 62% of full-time salaried workers were eligible; today just 7% are. From December, the White House has announced, the threshold will rise to \$47,476. That will probably boost the earnings of existing employees slightly, though firms are likely to cut wages for new recruits to keep costs down. They may also be discouraged from allocating workers more than 40 hours. That will hurt some. A slightly higher federal minimum wage would be a less risky route to higher pay. But changes to overtime rules, unlike the minimum wage, do not require the consent of Congress.

US income distribution for fully-employed workers



Sources: University of Minnesota IPUMS; The Economist

The bathroom wars

The plughole of history

ATLANTA

How access to public restrooms became a central issue in American politics

OXFORD, Alabama, may be less prestigious than its namesakes in neighbouring Mississippi or in England, but it recently achieved a national distinction, albeit an ambiguous and fleeting one. At a meeting last month its councillors voted for a new ordinance, unprecedented among municipalities, imposing fines or jail time on anyone using a restroom that did not correspond with the sex indicated on their birth certificate. The measure was framed as a response to an announcement by Target, the retailer, that customers in its stores may use restrooms according with their self-perceived gender identity. A week later, amid threats of boycotts and litigation, the councillors rescinded it.

If the city's citizens are baffled by this farrago, they are not alone. Possibly not since Elvis Presley died in one have America's bathrooms loomed so large, as rows over access to them erupt in statehouses and school districts across the South and beyond. As in Oxford, they typically involve political grandstanding, corporate disapproval, transgender activism and legal blowback; the fiercest surrounds a new North Carolinian law containing a public-sector bathroom rule, now the subject of tit-for-tat litigation by the state and the federal Justice Department. Amid these controversies, many conservatives agree with Ted Cruz that America has "gone off the deep end" (a petition urging a boycott of Target has drawn 1.25m signatures); a phalanx of liberals backs transgender rights; but, judging by the erratic opinion polls, lots of Americans are simply mystified.

That is not surprising. If gay rights have advanced quickly, the transgender movement—which cohered into an organised campaign only at the turn of the century—has made warp-speed progress. It is only a few years since mainstream psychiatry classified gender dysphoria as a "disorder"; now the Pentagon wonders whether to pay for surgery for transgender troops. And despite the appearance of Caitlyn Jenner, formerly the Olympian Bruce, on the cover of *Vanity Fair*, only a minority of Americans, if a growing one, say they know a transgender individual: 35% of likely voters, according to a recent survey by the Human Rights Campaign (HRC), a lobby group (which seems high). That reflects their small numbers: the best estimate is of 700,000 transgender adults. "People are still getting to know us," says Jay Brown of the HRC. One such is Dennis Daugaard,

South Dakota's governor, who reportedly had never met a transgender person when a bathroom bill landed on his desk earlier this year. He talked to some and vetoed it.

The newfangled vocabulary and shifting pronouns of transgenderism, plus its sexual, sartorial and medical nuances, can be alienating—quite apart from the unsettling question of toilet-usage. That issue matters to transgender people as it does to everyone else: it is hard to go to work if you have nowhere to take a leak. Bathroom access has been a particular flashpoint in schools, where transgender teenagers are liable to bullying and mental-health problems. In guidelines issued on May 13th, Barack Obama's administration reiterated its view that pupils may use bathrooms according to their self-identified gender. That is one manifestation of its insistence that gender identity is protected under the sex-discrimination provisos in civil-rights law. (Mr Obama, says Mara Keisling of the National Centre for Transgender Equality, is "by far the best president on trans issues—and no one's in second place.")

Still, bathrooms are hardly the most pressing concern for transgender activists. Hate crimes, the treatment of transgender prisoners, health-insurance coverage and the difficulty, in some states, of tweaking

driving licences and birth certificates, are more urgent. Bathrooms have ascended to prominence less because of their importance to the trans lobby than because of their value to its opponents. For them, the putative infiltration of bathrooms by perverts and predators—the rationale for measure's like Oxford's—is a nicely combustible emblem for wider social upheavals. The restroom door is their way back into a broader fight that, especially after the Supreme Court's ruling on gay marriage, they had seemed fated to lose.

Consider North Carolina's law. Its defenders protest that it has been misunderstood, and they are right: it is much more sweeping than is commonly recognised. It mandates a statewide discrimination policy that omits sexuality as a criterion, squashing a more liberal ordinance passed in Charlotte. (With the Obama administration and some big companies, liberal cities are among the gay and transgender movements' key allies.) The law also makes it impossible to sue for discrimination in state courts; by the by, it prevents cities instituting their own minimum wages.

Of spigots and pivots

Yet the aspect its supporters stress is the bit about bathrooms, with all their ickiness and primal sensitivity. The same distracting emphasis was deployed by conservatives in Houston to vote down a new anti-discrimination policy last year. As campaigners often point out, this approach has form: scaremongering about bathroom safety was a tactic in resistance to racial desegregation. Loretta Lynch, the attorney-general, drew an analogy between the two cases in a recent statement that elated trans advocates: "We stand with you," she assured them; "history is on your side."

Never mind that many transgender people use bathrooms of their choice already; that stopping them from doing so is impractical; or that voyeurism and molestation, the spectres raised by traditionalists, are anyway illegal. Or, indeed, that transgender restroom-goers are far more likely to suffer assault than to perpetrate it: these stringent rules may be a solution in search of a problem, but, for their proponents, they offer a lurid pretext to push back against change, and maybe win a few votes. In this way, says Jody Herman of UCLA, trans people are "getting caught in the crossfire" of the gay-marriage decision.

Perhaps, then, America's suddenly fraught bathrooms should be seen as an improbable pivot in its history: the site of a skirmish between a rapidly rising new orthodoxy and its resilient predecessor, which may seem as preposterous in the future as it would have done in the past. In this battle transgender activists are avatars for reform as well as its champions; combatants in America's culture wars, but also their victims. ■



Wee the people

Lexington | Building redemption

A new museum on the National Mall does justice to black history



THE skyline of Washington, DC, has never seen the like of the National Museum of African American History and Culture, which will be opened in September by Barack Obama. The museum marches upwards in three sharp-angled tiers that, its architects say, pay homage to wood carvings found across west Africa at the time of the Atlantic slave trade. Its outer skin of dark, bronze-coloured, cast-aluminium panels is at once handsome and a shock on a National Mall dominated by monuments in cool, white marble.

Further surprises lurk below. Most of the 400,000-square-foot museum—the founding of which was first proposed more than 100 years ago by black veterans of the civil war—lies underground. Visits begin with a ride down into the earth, emerging into a large history gallery. With its towering walls of rough, clay-coloured cement, the gallery offers an unexpected sensation of standing at the bottom of a freshly dug trench.

On a recent preview tour led by the museum's curators and architects, the underground hall looked both impressive and a bit eerie. Its largest artefacts include a rare wooden slave-cabin from the early 1800s, a segregation-era railway carriage, a watch-tower from an infamous Louisiana prison and a gleaming blue-and-yellow biplane, used to train pioneering black pilots for army service during the second world war. The underground hall feels a bit like an archaeological dig—a place of precious treasures, painstakingly unearthed. But the same space also feels something like a reopened grave, dug out to exhume evidence of old crimes. That uneasy mix of atmospheres is to the museum's credit: black American history should provoke both pride and horror.

The museum, which is part of the Smithsonian Institution, works hard to convey the everyday viciousness of slavery for its victims. This is not easy: few slave possessions survive today. But staff have scoured archives to find black voices, testifying to the resilience of slaves, their religious beliefs, friendships, family ties and aspirations—even if that aspiration, as one curator notes, may have been just to be able to read. One long wall of the history gallery has been turned into a giant timeline, marked with the dates of legal landmarks and major events.

The slave cabin of weathered timber, crated up and transported from Edisto Island, South Carolina, stands at the wall's

midpoint, near the date of the Emancipation Proclamation. From the cabin's front door can be seen dates going back to colonial times—fittingly, for settlers brought the first Africans to tiny Edisto Island in the 17th century. From the cabin's back door can be seen the dates of the nearly century-long era of segregation, stretching away from the end of the civil war to the time of civil-rights struggles in the 1960s. Objects on display, some of them gathered from public roadshows around the country, will include a shawl belonging to Harriet Tubman, the abolitionist and organiser of dozens of slave escapes. The terrors of nameless victims will be captured too, through such objects as an amulet in the shape of miniature shackles from what is now Guinea-Bissau, intended to protect the wearer from being enslaved.

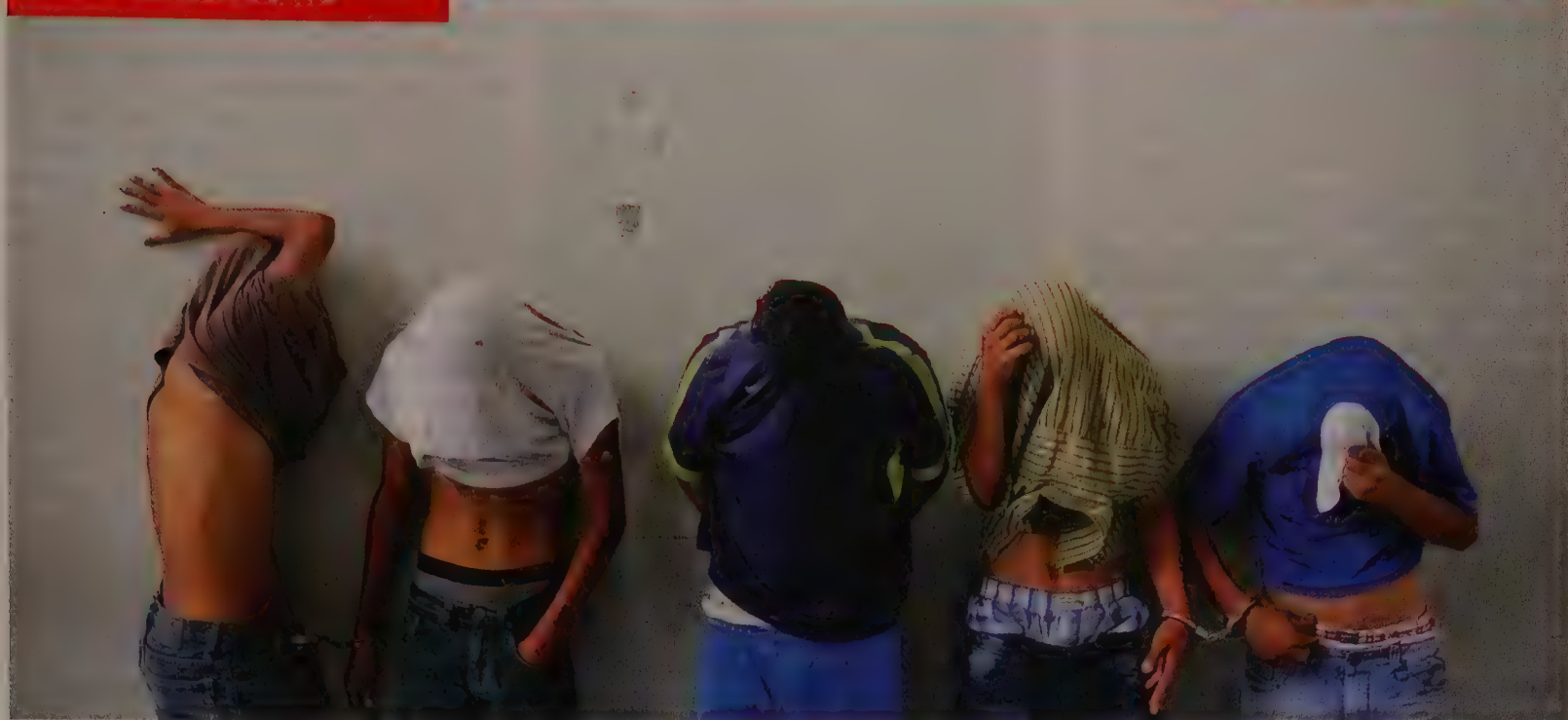
Ramps lead upwards to galleries recording the black American experience of everything from the armed forces to sports, business, education and music (Chuck Berry has donated a red beast of a Cadillac that carried him onstage at a 1986 concert). As visitors climb they move forward in time. They will also move farther away from the easy political consensus that surrounds the deepest galleries, with their tales of enslavement and violently enforced segregation. Visitors of all sorts can shudder, as one, at slave shackles small enough to fit a young child's wrists, and wince at the glass-topped coffin that once held Emmett Till, the 14-year-old whose lynching in Mississippi in 1955 (allegedly for whistling at a white woman) was one of the sparks that inflamed the civil-rights movement.

That consensus is likely to break down once visitors reach displays recalling how some Black Power activists denounced the Vietnam war as "Western imperialism", or accused mainstream civil-rights leaders of selling out. Opinion will divide further at seeing Mr Obama's election to the presidency recorded in a gallery called: "A Changing America—1968 and beyond". There will be mention of the Black Lives Matter movement, with its claims of endemic police racism.

The fire next time

The museum aims to start conversations about race but not to "bludgeon" visitors, says a curator. The risks are obvious in a country in which opinions often divide along starkly racial lines. Yet there are reasons to hope. Arguably the largest obstacle to constructive conversation involves not intolerance, but a more subtle barrier: impatience at having to discuss race at all. The 2015 edition of the American Values Survey, a large poll, found that about six in ten white Americans say the country has already made the changes needed to give blacks equal rights with whites. Only 12% of blacks agree.

Though the museum's final displays have yet to be installed, one message already stands out from a preview tour: that America is not done with the slow, difficult work of racial equality, and history helps explain why. That is not the same as calling America an irredeemably racist place. Instead, the premise of the project is that "the country is not finished", says David Adjaye, a Ghanaian-British architect and the museum's lead designer. Other countries may be capable of building a museum about racial history, Mr Adjaye suggests. But, he adds, "I don't know of any other country that is capable of looking so clearly down into itself"—let alone building that museum in the ceremonial heart of its capital. The project is only partially about the past, in other words. It is also a bet on future self-improvement. In that, the latest arrival on the National Mall could hardly be more all-American. ■



Crime in El Salvador

The gangs that cost 16% of GDP

SAN SALVADOR

The country's gangs specialise in extortion. But they may be branching out

ON THE 15th day of each month a bus driver in San Salvador tucks a small package wrapped in a black plastic bag under his seat and sets out on his route. At a predetermined spot between the hillside slum where the route begins and the bustling urban street where it ends, two teen-aged boys in baggy clothes board the bus, retrieve the package and hop off. They will deliver the bag—which contains \$550 in cash—to the Mara Salvatrucha, one of El Salvador's main gangs. Similar exchanges take place on most bus routes throughout the country.

Such extortion is an unavoidable feature of life in El Salvador. A vast, meticulously organised network touches every business, from kerbside tortilla-sellers to multinationals. Large stretches of country, including the centre of the capital city, are controlled by the Mara Salvatrucha gang and two factions of Barrio 18 (see map). Salvadorean authorities estimate that 60,000-70,000 people belong to gangs and that half a million more—relatives, business partners, corrupt politicians and police—are financially dependent on them.

Salvadoreans pay \$756m a year, about 3% of GDP, to gangs, according to a study by the country's central bank and the UN Development Programme. El Salvador's shockingly high murder rate is largely due to wars between them for control of territory (see chart, next page). The study estimates that the total cost of violence, includ-

ing the amount households spend on extra security and the lost income of people deterred from working, is nearly 16% of GDP, the highest level in Central America.

El Salvador's gangs have neither the wealth nor the political clout of Mexico's drug-traffickers (nor of their Colombian peers in the late 1980s). But many people fear that their influence will grow. Gangs may now be using the money harvested from extortion to build up capital, warns Alex Segovia, an economist and onetime adviser to Mauricio Funes, El Salvador's president from 2009 to 2014. If so, they are likely to become more entrenched, to infiltrate legitimate businesses and to wield more power over various levels of govern-

ment and the police.

Today's gangland has its origins in Los Angeles, where the Mara Salvatrucha and Barrio 18 formed and from which they were deported by Bill Clinton's administration in the 1990s. Their early Salvadorean scams were modest. *La cora* involved shaking down merchants for a quarter-dollar at a time. Francisco Flores, El Salvador's president in the early 2000s, responded with a "*mano dura*" (iron fist), locking up thousands of gangsters, separately by gang, which increased the prison population by half.

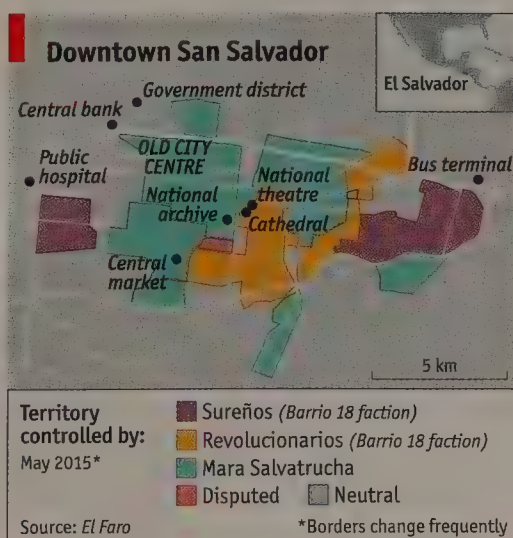
Prisons became "24/7 gang meetings", one gangster told José Miguel Cruz, a political scientist. The gangs' leaders began coordinating their activities nationwide, plotting revenge against their captors and vying with one another for dominance. Viejo Lin, a leader of Barrio 18, issued an order to "go to war". Its rivals responded. "We needed money to buy guns to protect ourselves from the police and from los números [Barrio 18]," said a member of Mara Salvatrucha, who was imprisoned under *mano dura*.

Extortion, which requires nothing more than muscle and a mobile phone, was the obvious way to make money. "Colombia has drugs, but the only resource El Salvador can exploit is its people," says Mr Cruz. The 12-year war between El Salvador's right-wing government and leftist guerrillas, which ended in 1992, had left ex- ▶▶

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▶ combatants without work, assault weapons without proper oversight and tens of thousands of Salvadoreans accustomed to taking orders from guerrillas or local security forces. The emerging extortion networks did not lack manpower.

With buses, the involuntary partnership begins when a “neighbourhood kid approaches you with a ringing mobile phone”, says the route’s “negotiator”. On the line is a gang leader, calling from jail to discuss *la renta*. At first, the negotiator simply paid the Mara Salvatrucha, the gang that controls most of the territory through which the route passes. But in 2014 the caller was from Barrio 18, which controls the hillside area that abuts the route office, where 30 buses spend the night. The zone was in dispute, the gangster pointed out. He dropped the name of a recent murder victim, and “offered to make sure my drivers stayed safe, for a small contribution”, the negotiator recalled.

He hung up and ignored subsequent calls, until one night the route office was machinegunned, nearly killing a bus driver who was taking a shower. Since then, the negotiator has paid both gangs. The \$350 for Barrio 18 is slipped into the apron of an old woman who climbs the hill with a wooden cane on the first Friday of each month.

The negotiator says the bus route is lucky to pay just two gangs. Others pay up to four (the two factions of Barrio 18, which has split, and two autonomous “cliques” of the Mara Salvatrucha). A client who owns 32 minibuses pays roughly \$1,500 per bus per year—about 3% of revenue—to three gangs, an expense that appears in the account books as “special collaboration”. That does not include perks, like Christmas “bonuses”, excursions to the beach for gangsters and their families and pocket money that couriers swipe from drivers’ coin boxes.

Taxation without representation

A tough negotiator can bargain down *la renta*: Barrio 18 demanded \$1,800 at first for the old lady’s packet. But those who refuse to pay can expect no mercy. In 2015, 93 transport workers were murdered and 134 buses were attacked. Since 2004 gangs have murdered more than 1,000 transport employees. El Salvador’s transport sector, which includes taxis and pickup trucks as well as buses, paid out an estimated \$26m to gangs last year. The proceeds mainly go to supporting locked-up “homies” (lingo from Los Angeles days), paying footsoldiers and buying arms.

Transport is the most visible victim, but extortion spreads far beyond it. Gangsters control the entrances to urban slums, checking identity cards and demanding payment from residents. Their presence in wealthy neighbourhoods like the Zona Rosa in San Salvador, known for its expen-

Crime preys



sive restaurants and shopping malls, is harder to spot but no less lucrative. Small and medium-sized businesses suffer most. The National Council of Small Businesses, which has more than 10,000 members, says that 79% make extortion payments but only 16% report the crime. Ernesto Vilanova, the group’s president and the owner of a beach guesthouse, says business owners pay \$30m to gangs and spend \$140m a year for private security. Extortion forces seven to ten shops a week to shut down, the council estimates.

Bigger firms can afford more security and summon help from the government. La Constancia Industries, El Salvador’s largest brewing and bottling firm, closed its Agua Cristal plant in March, cutting off hundreds of thousands of households from their main source of potable water. The company blamed gang violence in the vicinity, which may have been triggered by a dispute over protection payments. Within days, the government sent police and soldiers to guard the factory.

The number of reported cases of extortion dropped from more than 4,500 in 2009 to around 2,900 in 2015. That is probably because few cases are prosecuted, and many Salvadoreans have come to see extortion as inevitable. Rather than diminishing, the extortion racket is mutating, believes Allan Hernández, who leads the attorney-general’s specialised crime-fighting units. The transition started in 2012, when a truce between gangs and the government cut El Salvador’s murder rate in half at the price of tolerating continued extortion and other crimes. Critics of the policy, like Mr Hernández, say it gave gangs legitimacy. “You see the government sitting down with them... You see the churches sitting

down with them,” he laments. The result: “The line between the authorities and the delinquents became blurry.”

That between gangs and legitimate enterprise may also be fading. Juan Flores, a former mid-level member of the Sureños faction of Barrio 18, says it has invested proceeds from extortion in nightclubs and other businesses. Recent court cases have revealed gangs’ business dealings with mayors and entrepreneurs. One showed that a notorious leader of the Mara Salvatrucha, Chepe Furia, rented out his dump truck to the mayor of a town on the border with Guatemala and employed local police officers. So far in 2016, five police officers have been arrested for extortion. Some analysts worry that gangs will become full-scale drug-trafficking networks to rival those of Mexico, Honduras and Guatemala. “As they grow they’ll turn into true mafias,” says Rodrigo Ávila, a former director of the national police.

Budding alliances between gangs and the economic and political elite will make dismantling the extortion networks harder. Since the breakdown of the truce between gangs and the government in 2014, the authorities have sought to regain control of territory by using such means as evicting gangsters with rapid-response battalions and putting imprisoned leaders in solitary confinement. A better approach, say human-rights groups, would be to provide actual and potential gang members with skills and jobs.

In a country where a quarter of people aged 15 to 29 are neither working nor in school, that is hard. The government has spent little money on programmes to employ gangsters or youngsters at risk of becoming one. It has shut down most of the pilot projects from the truce era, like bakeries and chicken farms run by former gang members, which in some places reduced extortion on a local level. A law that would provide public money to support gangsters who want a way out has been stalled in the legislature for six years. “It’s not popular to talk about gang members as humans,” says Henry Campos, a former vice-minister of security who helped draft the legislation.

Rodrigo Bolaños, who manages one of the few businesses that openly employ ex-gangsters, hopes the private sector will solve the problem. His factory, League Central America, produces varsity-themed sweatshirts, boxer shorts and the like for universities in the United States and Canada. It employs 550 people with disabilities, addictions and other problems, including around 40 former gang members. “There has to be a shift in the mentality of business owners,” says Mr Bolaños. He hopes to persuade 40 enterprises to adopt his “inclusion model”, putting 25,000 people, among them ex-gangsters, to work over the next five years.

But even the inclusive Mr Bolaños is careful about whom he hires. Mr Flores, the ex-Sureños gangster, whose back, chest and arms are scattered with tattoos and scars from bullet wounds, became an evangelical Christian after he left prison in 2010. Such a religious awakening is the only reason for leaving a gang that its bosses will accept, and a necessary qualification for employment as far as Mr Bolaños is concerned. "We take them when they're already decontaminated," he says.

Mr Flores now earns \$245 a month, and

gets such fringe benefits as subsidised food, health insurance and English classes. It takes more than just a job to replace the sense of belonging that gangs give their members. "You're safe, your homies take care of you and there's a sense that you're in it together, for better or for worse," says Mr Flores. For many young Salvadoreans, the prospect of life outside a gang is even more forbidding than the violent routine within one. "If there were more dignified alternatives," says the born-again garment worker, more gangsters would leave. ■

Some in Caracas joke that he must be the only man who can claim to fight a fictional war, and then lose it. But they fear the direction his rule might now take.

After the May 18th protests he threatened to supersede the current economic state of emergency (announced five days earlier) with a "state of internal commotion". Whereas the first gives him powers such as instructing the army to supervise the production and distribution of food, the second would give him the ability to impose something closer to military rule across the country.

Many in the opposition think this could signal the start of an "auto-coup", in which the government escalates the crisis so that it has an excuse to suspend democracy and constitutional norms. Mr Maduro has already indicated that he will govern without regard to the National Assembly, which came under the control of the opposition after elections last December. "It is a matter of time before it disappears," he said blithely at a press conference on May 17th. During the same event, held to rebut supposed lies told about him by international media, he refused to provide any information about the economy.

Henrique Capriles, the governor of the state of Miranda, who was narrowly defeated by Mr Maduro in a presidential election in 2013 after Chávez's death, is leading the opposition's efforts to expose the president's rule as unstable and lawless. He urged Venezuelans to ignore the state of emergency. "If Maduro wants to apply the decree, then he should start bringing out the tanks," he said on May 18th. His intent was not to provoke such a crackdown but to forestall one. He appealed directly to the army to make a choice between the constitution and Mr Maduro.

If Mr Capriles hopes that the army will desert the president, he is likely to be disap-

Venezuela

Trouble on the streets

CARACAS

The country is poised between chaos and dictatorship

"THIS government is going to fall!" chanted hundreds of protesters alongside the Avenida Libertador in central Caracas. Staring them down were ranks of security forces—from the police, the national guard and the feared, black-uniformed SEBIN (secret police)—charged with making sure that does not happen. Looming above was a huge grinning portrait of the late president, Hugo Chávez.

The protesters' aim on May 18th was, as it has been on two previous occasions this month, to march to the offices of the National Electoral Council (CNE). The supposedly independent, but nakedly biased, institution has been delaying its consideration of a petition it was handed weeks ago, the first stage of a process to recall Venezuela's president, Nicolás Maduro, through a referendum. With government forces blocking all routes to the CNE, the protesters were never likely to get close.

When a handful broke through the cordon, some attacking the police, the authorities had the excuse they needed. Multiple, deafening volleys of acrid tear gas burst above the crowd. At least 18 people were wounded and 26 detained. Pamela, a retired agricultural engineer in her 70s, was standing outside her home overlooking the avenue, holding a small handwritten cardboard sign saying "Maduro. Resign Now!" Tears in her eyes, she retreated inside. "This breaks my heart," she said.

The regime may feel the day was a success. The protests were not huge. The poor have yet to stream down from the barrios en masse to demand the president's ouster. But they are enraged and the government is worried. Almost 70% of Venezuelans want Mr Maduro to leave office this year, according to a recent poll. That demand is fuelled by the appalling deterioration of living standards under his incompetent

rule. Venezuela is suffering the world's deepest recession. Self-defeating price and currency controls and rampant corruption are causing shortages of everything from medicines to rice. "I am here because I am sick of queuing from dawn," said José Galeano, a protester who describes himself as a poor man. "This has to end."

Across Venezuela, small protests are now commonplace. Social media are awash with videos of shoppers plundering supermarkets and brawling with each other. As crime soars, the lynching of petty criminals is becoming more common.

The desperation such incidents reveal is dismissed by the increasingly delusional Mr Maduro during his endless television appearances. The shortages, he says, are the consequence of an "economic war" waged by enemies at home and abroad.



No food, but plenty of tear gas in reserve

pointed. Chávez, a former commando, made sure that the military had a large stake in his “Bolivarian” revolution and its profits. Mr Maduro has done the same. Dozens of high-ranking officers occupy senior positions in ministries. Mr Maduro recently approved the creation of a military company, CAMIMPEG, to provide services to the state oil company PDVSA.

Mr Capriles’s warnings about the increasingly dictatorial nature of Mr Maduro’s rule are now being echoed by worried outsiders. The secretary-general of the Organisation of American States (OAS), Luis Almagro, a former minister in Uruguay’s

left-leaning government, has written an open letter to Mr Maduro in response to his wild claims that the OAS was plotting to depose him. The Venezuelan leader must hold a recall referendum in 2016, Mr Almagro wrote, or risk becoming “just another petty dictator” of the sort that has plagued Latin American history. Mr Almagro’s former boss, the former Uruguayan president José Mujica, went one stage further, calling Mr Maduro “crazy as a goat”.

The main hope for avoiding either a naked dictatorship or a descent into chaos may be international mediation. Early in May it was reported that Pope Francis, who

played an important role in the rapprochement between Cuba and the United States, had written a personal letter to Mr Maduro. Its contents have not been revealed. The pope’s spokesman would only say that he was “following the situation with a lot of attention and participation”. José Luis Zapatero, a former prime minister of Spain, and Martín Torrijos, a former president of Panama, have had held a meeting with Mr Maduro and, as *The Economist* went to press, were expected to see the opposition. Venezuela’s neighbours are appalled by the prospect that the country might implode. They may not be able to stop it. ■

Bello | Lessons of the left

Impeachment may give the Brazilian Workers’ Party a brighter future

ON A bright and breezy morning in Brasília on May 12th, hours after the Senate had voted to start her impeachment for budgetary misdemeanours and thus suspend her as president, Dilma Rousseff walked down the front ramp of the Planalto palace to address a few hundred supporters of the Workers’ Party (PT). As she vowed defiance, behind her left shoulder stood Luiz Inácio Lula da Silva, her predecessor as president and the PT’s founding leader. He looked downcast and pensive, several times wiping his brow and his eyes with a handkerchief. No doubt he was contemplating the probable end of more than 13 years of PT rule.

Behind Ms Rousseff’s impeachment lies a double political failure. The PT once claimed a monopoly on ethical politics; in the public mind, it is now identified with leading a scheme to loot Petrobras, the state-controlled oil company, of more than \$2.4 billion to fill its own campaign coffers and the back pockets of allies. And Ms Rousseff, whom Lula sold to the country as a top-notch manager, proved to be an incompetent steward of the economy.

So what went wrong for Latin America’s biggest left-wing party? The answer starts with the PT’s ideological ambiguity. Formed in 1980 by dissident trade unionists (such as Lula), radical priests, grassroots social movements and Marxist intellectuals, the PT claimed to be a new kind of party, of radical democracy and the dispossessed.

Instead of evolving towards European-style social democracy, it remained trapped in the politics of the cold war. According to José de Souza Martins, a sociologist at the University of São Paulo (and a man of the left), the PT adopted “a fatal Manichean political pedagogy which, ideologically, divided Brazil into two big antagonistic and irreconcilable coun-



tries”. It stood for “the people” and “the poor”; those who opposed it were defined as the “rich”, even as Lula embraced Brazil’s corporate state of vested interests and national business champions (against which he had once rebelled). Instead of building a consensus for progressive reforms of public spending and of the political system, Lula allied himself with conservative rent-a-parties and, eventually, the pork-barrel barons of the Party of the Brazilian Democratic Movement (PMDB). The PT’s drive to remain in power indefinitely led to the Petrobras corruption scheme.

This polarising politics worked while the economy boomed, when there was enough money to shower subsidies on corporate Brazil as well as on social programmes. It rebounded against the PT when things fell apart under Ms Rousseff. When millions took to the streets in 2013 to demand better public services and cleaner politics, the party and the government were unable to respond.

Now the PT finds itself out in the cold. Its social movements will be deprived of state funds, its militants of cushy public jobs. Its brand has been badly damaged. It

faces a clobbering in municipal elections in October: already it has lost 130 of its mayors to defections.

Yet, ironically, impeachment may offer the PT a lifeline. It provides a new narrative of political victimhood. While Ms Rousseff has not been accused of corruption, many of her accusers have been. Michel Temer of the PMDB, Ms Rousseff’s vice-president and now the interim president, is doing his best to vindicate the PT’s claim that he is a relic of a corrupt and reactionary order. In naming a cabinet composed purely of white men, he is taking Brazil back to the early 1980s. In adopting the national slogan, “Order and Progress”, as his own, he is harking back to the elitist positivists of the late 19th century. Mr Temer has named a highly competent economic team. But the steps needed to restore economic growth, such as public-spending and pension cuts, will be very unpopular.

Wounded though he is, Lula remains Brazil’s most formidable politician. His sights are now set on the next presidential election. A poll in April gave him 21% support (up from 17% in March), putting him at the front of a crowded field. Lula can count on the memory of social progress under his presidency. No other party has the PT’s connections to the grassroots and the poor.

Brazil, with its inequalities of wealth and power, needs an effective left. The PT’s failure is thus a tragedy. Freed from the compromises of power, it will veer further left, reconnecting with social movements and harassing Mr Temer’s administration. If it wants to govern again, the party needs to learn some deeper lessons. Two stand out: it has no God-given right to power and, since Brazil’s fiscal resources are not infinite, it should be more careful in using them.



Barack Obama in Vietnam

Cash for questions

HANOI

Can freer trade soften Vietnam's thuggish ways?

WHEN she was sent to prison for helping organise a strike at a shoe factory in Vietnam's Mekong-delta region, Do Thi Minh Hanh was only 25. In the four years that followed the young labour activist was shuffled through six different jails, enduring beatings from guards and other inmates. Released in 2014, Ms Hanh carries on with her campaigning. But she says that police stationed near her house often prevent her from travelling to meet workers. Women, their identities hidden by face masks, are sometimes enlisted to manhandle her back into her home.

Ms Hanh is one of many outcasts hoping that Barack Obama's three-day visit to Vietnam, which begins on May 23rd, will bring a little succour. Mr Obama is the third American president to visit the country since the Vietnam war, and the tour will further deepen ties that have improved during his two terms—some analysts even think that the White House may ease an arms embargo. Mr Obama's visit is a chance to celebrate the signing of the Trans-Pacific Partnership (TPP), an American-led free-trade pact agreed upon late last year that Vietnam is expected to ratify soon. As a condition of entry, the ruling Communist Party of Vietnam has made some surprising commitments, including to tolerate the kind of independent labour-organising that has made Ms Hanh a pariah. But that is a promise on paper only.

No nation stands to gain more from the

TPP than Vietnam, which, the World Bank guesses, will get a GDP boost of 10% by 2030. Lower foreign tariffs would increase exports such as garments and shoes. The deal would also spur local production of fabric and much else that is currently imported. The TPP is popular with ordinary Vietnamese. They like any effort that reduces their dependence on China, Vietnam's big northern neighbour, with which it has a big trade deficit and a bitter territorial dispute. Meanwhile, reformers in government hope that TPP membership will hasten the privatisation of bloated state-owned enterprises, which have long weighed on the economy but which vested interests make difficult to slim.

A giant step for a paranoid party

More sensitive is the obligation to liberalise Vietnam's labour laws. A side agreement signed with America—and designed to satisfy critics in the American Congress—requires Vietnam to pass a law allowing workers to form independent trade unions at the factory level by the time the TPP comes into force; and after five years these unions must be allowed to form national and industrial federations. Some of the valuable tariff exemptions on offer to Vietnam will be held back until after this five-year target has been met.

The stipulations stand to end a monopoly long held by the Vietnam General Confederation of Labour, a fusty arm of the

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party under which all unions are presently herded. Its affiliates and its 8,000 full-time staff transmit the party line and organise morale-raising shindigs. It is common to find union leaders holding down jobs in company personnel departments. But the confederation has become less effective at averting strikes, which have grown to 4,000 in the past ten years, a fourfold increase on the previous decade.

Tolerating independent unions would be a big step for a paranoid one-party state in which churches and chess clubs receive formal supervision. There are few signs that the state is ready to make the leap. In the past few weeks police have carted away activists protesting against pollution that appears to have caused tonnes of dead fish to wash up on beaches in north-central Vietnam. The authorities claim that the demonstrations have been instigated by "terrorists" abroad.

The indications are that the party will find ways to neuter its pledge on unions, for fear of midwifing movements which may one day threaten its control. Activists warn that an official summary of Vietnam's labour agreement with America omits details such as the right of independent unions to collect fees from employers, as the state's labour federation does. The summary also hints that authorities will continue to hobble groups deemed to endanger "societal orderliness".

A partial implementation of the agreement may yet be better than nothing. A debate about labour laws might at least help reformers fashion the state-run union into a more effective body, thinks Erwin Schweissheim of the Friedrich Ebert Foundation, a German think-tank. But much relies on America's convincing the government that it is prepared to withhold Vietnam's tariff exemptions should progress be deemed insufficient. The deal's ►►

Virginity testing in Indonesia

Taking the cop out of copulation

JAKARTA

The unintended consequences of an outrageous tradition

WHEN Sri Rumiati joined the police, she had to take a virginity test. It was uncomfortable and humiliating, she recalls. Not to mention unscientific and irrelevant to police work.

Ms Rumiati, who is now a commissioner, has campaigned to have such tests for female recruits abolished. Officially they ended last year, after Human Rights Watch, a pressure group, condemned the practice. Badrodin Haiti, Indonesia's national police chief, insists that there are now no virginity tests, but what there is, he says, "is a test for reproductive health, which is part of the overall health examination." The police website warns female cadets to expect a "pregnancy test".

However, Dr Musyafak, the chief medical officer of Jakarta's metropolitan police, says that the new tests still involve a doctor examining the cadet to see if her hymen is intact. Whenever possible, female doctors conduct the tests, but in rural provinces, where female doctors are rare, cadets may have to endure being examined by a man.

"Failing" the test no longer affects the overall fitness score that helps determine whether a cadet can become a fully fledged police officer, says Dr Musyafak. However, in as vast an archipelagic nation as Indonesia, is it hard to tell how uniformly this reform is enforced. Meanwhile, the Indonesian army continues to subject female recruits to virginity tests.

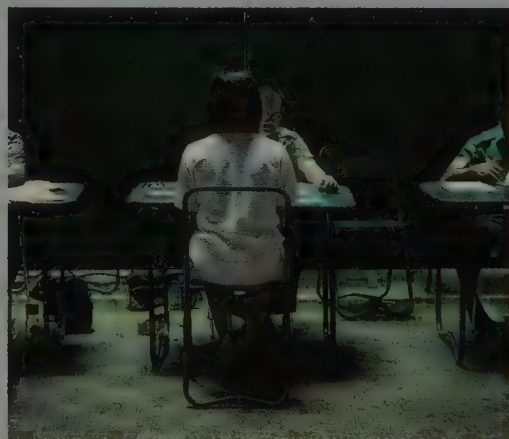
Two assumptions lie behind such tests, both wrong. First, that you can tell if a woman is a virgin by probing her hymen. Such tests reveal nothing about a woman's sexual history. The second assumption is that virgins make better police officers or soldiers, because they are more "moral". As a senior policeman told reporters in 2014: "If [a candidate] turns out to be a prostitute, then how could we accept her for the job?"

Such attitudes are not the only reason why only 3% of Indonesian police officers are female—there are also not nearly

enough police-academy places for women—but they do not help. "If I applied for a job and they said 'Take a virginity test', I'd look for a different job," says Zakiatun Nisa, a feminist activist in Jakarta. "If an employer wants you to take a test like that, it's a sign that the employer is screwed up."

"We need more policewomen," says Ms Rumiati. "Many precincts have none." She says this makes it difficult for women to report domestic abuse or rape. Indriyati Suparno, of the National Commission on Violence Against Women, agrees. Women in Indonesia are often reluctant to talk about intimate problems, she says. "It's hard to talk about domestic violence even with your best friend. So how can you talk about it with the police?"

Last year a woman who had reported to the police that her husband was abusing her was jailed for five months for defaming him. (Her husband cited her Facebook posts complaining about his alleged behaviour.) Judging by official statistics, Indonesia is a very safe place to be a woman. For instance, in 2013 fewer rapes were reported among its 250m citizens than among Sweden's 10m. Perhaps Indonesian men are signally less violent than Swedes. Or maybe a lot of Indonesian women are too intimidated to report what is happening to them.



It's no way to recruit an army

► critics in the West claim that America has done a bad job of enforcing labour-rights clauses in previous free-trade agreements, for example with Peru and Colombia. Supporters counter that the wording of the deal with Vietnam lays out the obligations, and potential sanctions, more explicitly than do previous agreements.

The one certainty is that none of this will be tested if, as is increasingly feared, America's own lawmakers end up not rati-

fying the TPP. Activists in Vietnam are not holding their breath. In November, weeks after the terms of the TPP were made public, plain-clothes policemen spirited Ms Hanh away from a meeting with fired factory workers to a police station; she says she was choked and beaten about the head. The government accuses her and others like her of aiming to overthrow it. She says she only wants workers to know their rights. ■

Sanctions on Myanmar

Not clear yet

YANGON

America tweaks sanctions on a not wholly democratic country

MYANMAR'S journey towards democracy was never going to be easy. Yes, Aung San Suu Kyi's National League for Democracy (NLD) won a general election in November in a landslide. And the army, defying precedent and the predictions of many old Myanmar hands, respected the result. But it had already rewritten the constitution in ways that stopped Miss Suu Kyi from becoming president. It retains control of the powerful ministries of defence, border affairs and the interior. And so the country's new democracy is an awkward *pas de deux* between an inexperienced government with a huge mandate and armed forces that have called the shots in Myanmar for most of the time since independence. This is why any alteration of American sanctions imposed on the country was bound to be closely watched.

On May 17th Barack Obama's administration announced changes to a sanctions regime whose purpose for decades was to push a closed, repressive Myanmar run by the generals to change. The new measures take three state-owned banks and seven state enterprises off its blacklist, lift some restrictions on trade with Myanmar, make it easier for American companies to move money in and out of the country, and widen the scope of the kinds of business Americans in Myanmar may conduct. Yet plenty of sanctions remain in place, including on dozens of individuals and Burmese companies close to the armed forces. And six companies controlled by one tycoon, Steven Law of the Asia World group, founded by his father allegedly as a drug-running front but now the country's biggest conglomerate, are new to the blacklist.

The tweaks reflect an awkward balance. After the election American businesses wanted sanctions revoked entirely, arguing that a profound democratic transformation had taken place. Yet not even the government of Miss Suu Kyi—who, during her years under house arrest, did more than anyone to persuade the West to impose sanctions—wants that to happen. Those state logging and mining enterprises now able to trade with America are ones that report to her rather than the army.

Meanwhile, as Miss Suu Kyi's style of governing emerges (she rules as the only "state councillor"), it carries worrying echoes of the opaque and authoritarian generals of the bad old days. Her government boasts of a 100-day plan, yet has not released it. Admittedly, the government is ►►



Aung San Suu Kyi in a pas de deux

grappling with the thorny task of merging 36 ministries into 21 to create a more streamlined government. Yet Miss Suu Kyi has been notably unforthcoming about her goals: for instance, how many people should be lifted out of poverty, or what policies are to change. As for an overarching vision for her country, there is none.

Hundreds of laws are under review in parliament, but no one knows precisely which ones. And even those laws that have been amended remain surprisingly draconian. A new law on peaceful assembly replaces the requirement for permission for a demonstration with a requirement to notify authorities. Yet violators may still be jailed.

Further, Miss Suu Kyi unsettled Western diplomats (who not long ago used unequivocally to adore her) when she asked the new American ambassador not to refer to a persecuted Muslim minority by their name, the Rohingyas. Burman chauvinists had demonstrated in Yangon and Mandalay against the new ambassador's use of the word, which in their eyes graces the Rohingyas with the dignity of citizenship which they wish to deny to them. Meanwhile, her religious-affairs minister has referred to Muslims and Hindus in a Buddhist country as mere "associate citizens".

Such attitudes bode ill for what Miss Suu Kyi says is a priority, bringing several civil wars involving ethnic minorities, mostly in Myanmar's border regions, to a close. On May 16th the government set up committees to prepare for peace talks, but much remains unclear, including the status of agreements reached with the last government, and the scope the army will allow Miss Suu Kyi in the peace process. Myanmar is no normal country yet, and the sanctions by and large remain. ■

Justice in India

Dropping the scales

DELHI

Overburdened yet overactive, India's courts are failing to do justice

IT MIGHT seem natural for senior figures from three furiously sparring political parties to meet in front of a judge. Yet a recent case before India's Supreme Court found three lawmakers fighting not against each other but against the law itself. They were arguing that a 156-year-old statute that holds defamation to be a criminal offence is both unconstitutional and a danger to free speech (which it is). The petition failed. A two-judge panel's 268-page ruling on May 13th upheld the colonial-era law.

This was hardly the first time that India's top judges have failed to oblige politicians. Universally frustrating yet desperately needed, the country's courts are a paradox. The complexity of India's federal system, with its relatively weak executive and a slow-moving Parliament, places an unusually large burden on the judicial pillar. Even more than in America, where judges can seem to legislate from the bench, India's courts flex their muscles.

In recent months higher courts have tossed out legislation aimed at creating more public oversight of their own appointments, blocked a central government bid to impose direct rule on a state whose legislature had become deadlocked, and ordered the creation of a new agency to manage disaster relief, despite the existence of similar bodies already. They have ordered a state-owned airline to provide a service to a mountain resort, Shimla, on grounds of public interest, and have slapped a ban on the registration of big diesel cars in the capital, Delhi, until judges decide whether they pollute too much.

Small wonder that the finance minister, Arun Jaitley, of the ruling Bharatiya Janata Party, recently drew loud applause in Parliament by accusing courts of subverting other branches of government. "Step by step, brick by brick, the edifice of India's legislature is being destroyed," he warned. But in case anyone might think that the judiciary has it in only for the legislature and for big business, the Supreme Court recently demanded an investigation into wife-swapping among navy officers.

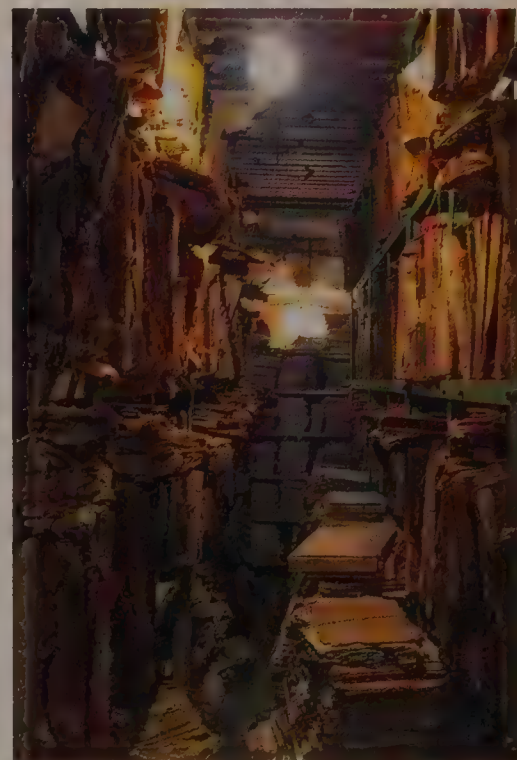
Yet for all its power, Indian justice remains erratic, opaque, undermanned and, above all, slow. Last month T.S. Thakur, the chief justice, burst into tears at a public meeting that included the prime minister, Narendra Modi, as he pleaded for more resources. The statistics are indeed distressing. India has more than 22m legal cases pending, 6m of which have been stuck in

the courts for five years or longer. (The Supreme Court nevertheless deals with 47,000 cases a year; America's dismisses 8,000 a year and hears only about 80.)

To manage the huge caseload India has only 16,000 courtrooms and barely as many working judges—14 of them per million people compared with 107 in America. As far back as 1987 a government-advisory body, the Law Commission of India, recommended a fivefold increase in the number of judges. That target has not remotely been reached. Thousands of existing judicial positions have remained vacant including, until this month, nearly half the jobs in higher courts and six out of the 31 judgeships in the Supreme Court itself.

Such manpower shortages do not just mean delays. They generate systemic miscarriages of justice. A government report in 2014 revealed that two-thirds of the 400,000 inmates in Indian prisons—where the official occupancy rate is 117%—had yet to be convicted of any crime. It is also estimated that more than half of prisoners who could seek release on bail do not do so. Either they cannot afford it or they have not been made to understand that this is a right.

Mr Thakur's display of emotion seems to have had some effect. Critics of Mr Modi's government had accused it of delaying the appointment of top judges out of pique at the Supreme Court's quashing of a bill granting politicians more say in the matter. For whatever reason, that bottleneck has now gone, and in short order five new Supreme Court judges and a further 150 High Court judges have been approved. Filling the lower benches is a tougher task, and generating swifter justice a tougher one still. India's judges and politicians should fix those things first. ■



Enough to make a grown judge cry

Banyan | Rebuilding bridges

As the G7 gathers in Japan, religion, politics and the bomb will all help Shinzo Abe



NOT long after the atom-bombing of Hiroshima and Nagasaki and Japan's surrender in the second world war, American soldiers reached one of the holiest shrines of the state religion, Shinto, at Ise in Mie prefecture on the main Japanese island of Honshu. When a guard tried to stop them trundling their Jeeps to the shrine over the 100-metre-long Uji bridge, made of precious cypress wood, he was rebuffed with a pistol. Any damage to the bridge would have been repaired anyway since, like the rest of the 1,300-year-old shrine, it is rebuilt once every 20 years. So, among the countless humiliations endured by a defeated nation, this was a petty one, now forgotten. It will be expiated on May 26th, when Shinzo Abe, Japan's prime minister, is expected to use the bridge to welcome fellow leaders from the rich world's club, the G7, to their annual summit, on an island near the shrine.

It seems an odd site—remote, little-known abroad and holy to a religion disestablished after the war, with the constitution of 1947 decreeing that “no religious organisation shall receive any privileges from the state, nor exercise any political authority”. Mie did not even compete for the privilege of hosting the summit, but was cajoled into doing so by Mr Abe's office. Yet for the prime minister's life mission of “escaping the post-war regime” by making his country strong and proud again, it is a subtle choice.

The summit will bring Mr Abe other political benefits, especially now that, on its margins, Barack Obama is to become the first serving American president to visit Hiroshima. The White House has made clear that Mr Obama will not apologise for the death and destruction inflicted on Hiroshima on August 6th 1945 and, three days later, on Nagasaki. But a poll suggests that nine-tenths of Japanese welcome his visit. For the left, it is a reminder of the awfulness of war and the importance of the pacifist provisions in the constitution. For many on the right, it recognises Japan's victimhood and the unfairness of a world which demands apologies for its wartime crimes. The latest, an agreement with South Korea in December over the handling of the cases of so-called “comfort women”—sex slaves for the Japanese army—was probably what allowed Mr Obama's visit. Nevertheless, whatever he does in Hiroshima, he will upset China—which fears another attempt to whitewash Japan's history—and quite a few Americans, too. (The proportion of Americans who think the bombing

justified because it ended the war has fallen from 85% in 1945 to 56% last year, but that is still a majority.) Later this year Mr Abe may visit Pearl Harbour, site of the infamous surprise attack on Hawaii that brought America into the war.

Compared with these wartime commemorations, the events at the shrine at Ise will be less controversial. But the nationalists who form a big part of Mr Abe's support base will applaud. Mr Obama may not perform the rituals expected of less-exalted worshippers: purifying hands and mouth with water from a wooden ladle dipped in a stone trough; bowing deeply, clapping and praying before the main sanctuary, the divine palace of Amaterasu sun goddess and mythical ancestor to Japan's emperors. Even so, the G7 will have given an international badge of respectability to Shinto, which Japan's pre-war politicians had forged into a tool of aggressive imperialism. Beginning the summit at Yasukuni, the Shinto shrine in Tokyo that honours Japan's war dead, including 14 Class A war criminals, would be unthinkable. Even Mr Abe stays away these days, having provoked regional fury by going there in December 2013.

Mr Abe shows no deep interest in Shinto itself, says a scholar at the university in Tokyo where future Shinto priests study. But he is a member of Shinto Seiji Renmei, the religion's powerful political wing, which campaigns to restore much of the nation's pre-war religious, social and political order. In 2013 Mr Abe took part in the ancient ceremony marking the rebuilding of Ise, only the second prime minister ever to do so. Taking nine cabinet ministers with him, he turned a religious rite into a political statement.

In this sense the Ise summit fits into Mr Abe's long-term nationalist project, which has already seen his government increase the defence budget, relax a ban on weapons exports and reinterpret the constitution to allow Japan to take part in collective self-defence. America has welcomed all this: Japan is becoming a more formidable ally at a time of shared anxiety about Chinese ambitions in Asia. So Mr Obama may not be too worried if the summit, and his own visit to Hiroshima, bring Mr Abe political benefits. Even in advance, the prime minister's approval ratings have risen above 50% for the first time in months.

The summit may also give Mr Abe cover for going back on his commitment to raise Japan's consumption tax from 8% to 10% in April next year. A statement from world leaders that, with the world economy still fragile, fiscal stimulus is the order of the day might provide an excuse for deferring a tax hike. Seeking voters' approval for such a volte-face might, in turn, be a pretext to call a snap election for the lower house of the Diet, or parliament, in July, along with one scheduled for the upper house. Such a “double election” has been the subject of fevered speculation. A statesmanlike image cultivated at the summit might encourage Mr Abe to take advantage of the opposition's present disarray.

Disturbing the post-war order

The problem for America in dealing with Mr Abe, however, is that it is impossible to separate those of his policies it likes from the broader nationalist agenda of some of his unappealing fans. That includes a revisionist view of history, in which Japan's only important mistake in the second world war was to lose it; a rejection of the American-imposed constitution and its renunciation of war; and perhaps a revival of Shinto as a state religion. In helping Mr Abe, America is unintentionally also boosting forces that want to take Japan in a direction feared by many around the region, and indeed in the country itself. ■



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A new railway to Tibet

Doubling down

LITANG

Plans for a new railway line into Tibet pose a huge technological challenge—and a political one

“A COLOSSAL roller-coaster” is how a senior engineer described it. He was talking about the railway that China plans to build from the lowlands of the south-west, across some of the world’s most forbidding terrain, into Tibet. Of all the country’s railway-building feats in recent years, this will be the most remarkable: a 1,600-kilometre (1,000-mile) track that will pass through snow-capped mountains in a region racked by earthquakes, with nearly half of it running through tunnels or over bridges. It will also be dogged all the way by controversy.

Chinese officials have dreamed of such a railway line for a century. In 1912, shortly after he took over as China’s first president, Sun Yat-sen called for a trans-Tibetan line, not least to help prevent Tibet from falling under the sway of Britain (which had already invaded Tibet from India a decade earlier). Mao Zedong revived the idea in the 1950s. In the years since, many exploratory surveys have been carried out.

But it is only after building the world’s second-longest railway network—including, in the past few years, by far the biggest high-speed one—that China’s government has felt ready to take on the challenge. It had a warm-up with the construction of the first railway into Tibet, which opened in 2006. That line, connecting Lhasa with Golmud in Qinghai province to the north (and extended two years ago from Lhasa to

Tibet’s second city, Shigatse), was proclaimed to be a huge accomplishment. It included the highest-altitude stretch in the world, parts of it across permafrost. It required ingenious heat-regulating technology to keep the track from buckling.

China further honed its skills with the opening of a high-speed line across the Tibetan plateau in 2014—though in Qinghai province, rather than in Tibet proper. But neither track had anything like the natural barriers that the Sichuan-Tibet line will face. It will be just under half as long again as the existing line to Tibet, but will take three times longer to build. The second

line’s estimated cost of 105 billion yuan (\$16 billion) is several times more than the first one. Lhasa is about 3,200 metres (10,500 feet) higher than Chengdu, yet by the time the track goes up and down on the way there—crossing 14 mountains, two of them higher than Mont Blanc, western Europe’s highest mountain—the cumulative ascent will be 14,000 metres. The existing road from Chengdu to Lhasa that follows the proposed route into Tibet is a narrow highway notable for the wreckage of lorries that have careered off it. Some Chinese drivers regard the navigation of Highway 318 as the ultimate proof of their vehicles’, and their own, endurance.

Work on easier stretches of the railway line, closest to Lhasa and Chengdu respectively, began in 2014. Now the government appears to be getting ready for the tougher parts. A national three-year “plan of action”, adopted in March for major transport-infrastructure projects, mentions the most difficult stretch: a 1,000km link between Kangding in Sichuan and the Tibet—▶



► an prefecture of Linzhi (Nyingchi in Tibetan). The plan says this should be “pushed forward” by 2018. It will involve 16 bridges to carry the track over the Yarlung Tsangpo river, known downstream as the Brahmaputra. Dai Bin of Southwest Jiaotong University in Chengdu says the Chengdu-Lhasa line could be finished by around 2030.

In Litang, a town high up in Sichuan on that difficult stretch, a Tibetan monk speaks approvingly of the project, which will bring more tourists to the remote community and its 16th-century monastery (re-built since the Chinese air force bombed it in 1956 to crush an uprising). But the impact on Tibet of the Golmud-Lhasa line still reverberates. It fuelled a tourism boom in Lhasa that attracted waves of ethnic Han Chinese from other parts of China to work in industries such as catering and transport. The resentment it created among Tibetans, who felt excluded from the new jobs, was a big cause of rioting in Lhasa in 2008 that ignited protests across the plateau. The new line will cut through some of the most restive areas. Since 2011 more than 110 Tibetans are reported to have killed themselves by setting themselves on fire in protest at China’s crackdown after the unrest. Some of the self-immolations have happened in Tibetan-inhabited parts of Sichuan, including near Litang.

With spectacular views, the new line is sure to be a big draw. It is also sure to attract many migrant workers from Sichuan, a province of 80m people, to cash in on Tibet’s tourism. The journey time from Chengdu to Lhasa is a gruelling three days by road, or more than 40 hours by train through Qinghai. The new line will reduce it to a mere 15 hours.

Officials see other benefits. The route will cross a region rich in natural resources, from timber to copper. It will also, to India’s consternation, pass close to the contested border between the two countries. (China says India occupies “south Tibet”, and launched a brief invasion of India there in 1962.) A Chinese government website, China Tibet News, said in 2014 that building the Sichuan-Tibet railway had become “extremely urgent”, not just for developing Tibet but also to meet “the needs of national-defence-building”.

Communist party officials in Tibet hope that the new line will be just the start of a railway-building spree in the once-isolated region. On May 16th *Tibet Daily*, the government mouthpiece in Tibet, said that work would start in the coming five years on around 2,000km of track. It would include a line from Shigatse to Yadong (or Dromo), near the border with India and Bhutan, and another one to Jilong (or Gyirong), near the border with Nepal. China’s railway chief talks of “the extreme importance of railway-building for Tibet’s development and stability”. The region’s recent history offers scant evidence. ■

Economic policy

On whose authority?

SHANGHAI

A mysterious article prompts a flurry of speculation

WHEN a newspaper bases an entire story on a single, anonymous source, you would expect doubts about credibility to arise. Yet there were no questions about the credibility of an “authoritative person” who opined at length about the Chinese economy in the *People’s Daily* earlier this month. Not just any old source gets front-page treatment in the Communist Party’s mouthpiece. In this case, it is the third time in the past year that this “authoritative person” has had an outing to discuss the state of the economy. On this occasion, he delivered a stark warning about relying on debt to fuel economic growth. That, he said, could lead to crisis and to a collapse in growth.

Speculation is rife over who the person might be. For Pekingologists, it is a fine parlour game. There are two dominant theories. Both see the fingerprints of Liu He, a Harvard-trained economic adviser to Xi Jinping, China’s powerful president. Mr Liu has been a strong proponent of such structural reforms as cutting off funding for state-owned industries blighted by overcapacity. His views chime with the authoritative person’s message of tough love.

Writing under pseudonyms or anonymity to challenge those in charge is an ancient communist tradition. Some speculate that Mr Liu used the article to criticise the way in which the prime minister, Li Keqiang, has (mis-)managed the economy. The authoritative person cautioned against asking banks to swap loans for equity in troubled borrowers, an idea that Mr Li had pushed. But the problem with this argument is that Mr Liu already wields tremendous influence thanks to being close to Mr Xi. Why

would he resort to attacks in print to push back against Mr Li?

So a second possibility is that Mr Xi wanted the article not to criticise Mr Li but rather to deliver a shock to underlings who had strayed from his prescribed programme of slower but sounder growth. Supporting the notion that Mr Xi himself was involved was the publication the following day in the *People’s Daily* of a speech he gave on the economy. The speech, actually delivered in January, echoed many of the themes raised by the authoritative person, albeit in gentler tones. The authoritative person could be less diplomatic. Among other broadsides, the person heaped scorn on officials who described, in terms of economic performance, a “red-letter start” to the year. That was a phrase used by Zhang Gaoli, a member of the Politburo’s seven-man Standing Committee, China’s top decision-making body.

If the first theory is true—that Mr Liu was rebuffing Mr Li—the saga would point to divisions about economic policy in the highest echelons of the party. Slowing growth has stabilised in recent months, but that is in large part thanks to a gusher of new credit. In this scenario, Mr Xi would seem to be far more hawkish than Mr Li as he fights to rein in China’s credit-fuelled stimulus. If the second theory holds, Mr Xi and Mr Li generally see eye-to-eye on the economy but are struggling to get other officials to curb a reliance on debt. In this scenario, no matter how ambitious or justifiable their policy, the business of implementation remains precarious. Whichever theory is nearer the truth, it is clearly easier for China to talk about changing its growth model than actually to change it.





Mental health in the Middle East

Mindfield

AMMAN AND CAIRO

Wars and terrorism are stressful. Traumatized Arabs have nowhere to turn

WHEN Neda told her children that she might have to kill them, they assented. Such was their suffering after Islamic State kidnapped and enslaved them, along with thousands of other Yazidis, a religious minority, in northern Iraq in 2014. Neda's husband was taken and presumably killed; her eldest son, just 13 years old, was forced to fight with the jihadists. She shaved off the hair and eyebrows of her two young daughters to make them look boyish and sickly, so that rapists might leave them alone. Neda herself was raped, beaten and sold several times before she was bought and freed by relatives last year.

As Neda (not her real name) recounted her ordeal to aid workers at the Mamliyan camp for internally displaced people in the Kurdistan region of Iraq, she showed little emotion, the aid workers said. That is probably a coping mechanism. "If they give in one time and cry, they will not be able to stop crying for a while," says Rezhna Mohammed, the director of psychological services for the SEED Foundation, which runs a centre in the camp. Neda, though, has only asked for cash (to repay her liberators). Few people in the Middle East seek or receive help for their mental suffering.

Yet the region needs such care. Globally, one in ten people are thought to suffer from a mental disorder at any given time. The rate rises to one in six in areas affected by war. Ailments such as post-traumatic stress disorder and depression are common in the Middle East. War compounds these problems by making treatment hard-

er to obtain. Take Syria, where mental-health care was delivered out of three hospitals in Damascus and Aleppo before the war. One has been destroyed and the other two are now inaccessible, says the World Health Organisation (WHO).

There were only about 70 psychiatrists serving 23m Syrians before the war. Most have fled. In America there are 1.2 psychiatrists per 10,000 people; no Arab country has more than 0.5, and most have far fewer (see chart). The WHO reports that the number of sick is outpacing the already paltry number of psychiatric beds, and the number of day-care facilities is one-tenth of the global median. Even where there are plans to address such deficiencies, they are rarely implemented fully. The upshot is that more than three-quarters of people who need care do not receive it.

Careless

Psychiatric care, selected countries, 2014



Source: WHO

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Yet the region was once at the forefront of mental-health care. Indeed, the first psychiatric hospitals are thought to have been built during the eighth century in Baghdad and Cairo, where doctors experimented with treatments such as occupational and music therapy. Today's treatments are often more primitive. Many sufferers of mental illness rely on traditional healers to expel their evil jinnis (spirits). This is accomplished through such methods as whipping patients' feet, spitting holy fluids into their mouths or praying.

Those seeking professional help risk being ostracised. This is, in part, a legacy of the asylum system that countries such as Egypt adopted in the 19th century. "It was the first step in segregating mental patients," says Nasser Loza, a former general secretary of mental health in Egypt. One early asylum was in an old royal palace. But over time the facilities became more like prisons, where patients (and, sometimes, dissidents) were locked up and forgotten. People knew little about the places, except that those inside were "crazy".

From 2006 to 2011 Dr Loza opened up Egypt's psychiatric hospitals to public scrutiny, to increase pressure for reform. A law passed in 2009 aimed to speed up care, protect patients' rights and give them more say in their treatment. "We changed as much as we could," he says. But there are new signs of neglect. Last year 11 patients died at Khanka psychiatric hospital, north of Cairo, because of poor ventilation during a heatwave. At a recent party for staff inside the notorious Abbasiya psychiatric hospital in Cairo, patients were left unattended as a DJ played a song featuring the lyrics, *ana fee el laborya* (I went mad).

An alternative to asylums is to treat people through local clinics. The WHO points to examples such as Iraq, which rebuilt its mental-health system after the invasion of 2003 to allow for more care outside hospitals. In 2008-09 Jordan used cash from do- ▶▶

►nors to build three local mental-health centres. These were so popular that they led to much broader reforms. Lebanon has followed suit, integrating mental health into primary care. Even Syria has made efforts to decentralise treatment.

But the improvements have been small and fleeting. Consider Iraq. Its mental-health system is still so understaffed that therapy is often performed by those with a mere undergraduate degree, or by foreigners who do not know the culture. Renewed fighting has cut off care—and caused refugees to flood into Jordan, where reforms have been undermined by a lack of funds. In Syria, the government offers threadbare care in loyal areas and none in rebel towns. In the Gulf, where there is more money, relatively little is spent on mental health. The proportion of people in the region who need mental-health care but don't get it "is as large as ever", admits the WHO.

Even where therapy is available, many refuse it because of the stigma. The SEED Foundation tries to make things easier at its centre in the Mamlyan camp. Cooking and knitting classes provide an opportunity to talk to residents—and cover for those seeking treatment. It is nothing like an asylum. Still, Neda refuses help. She cries every day and two of her children do not talk. But that doesn't mean they are crazy, she tells Mrs Mohammed. ■

Israel's atomic angst

A textile factory with a difference

Should Israel close its ageing nuclear reactor?

WITH its cupola dully glinting in the sun across kilometres of an exclusion zone in the Negev Desert, the nuclear reactor near the Israeli town of Dimona has for decades been the subject of intense speculation. Its bland official name, the Centre for Nuclear Research, belies a martial purpose. Foreign intelligence services, atomic scientists and a former Israeli employee claim that it is the source of fissile material used to make Israel's nuclear weapons.

The country's atomic secrets have always been closely guarded, so little is known about the plant at Dimona. However, officials at the Israel Atomic Energy Commission (IAEC) admitted at a scientific conference last month that the reactor is showing its age. An ultrasound inspection of the aluminium core found 1,537 small defects and cracks, they said. The lifetime of such a reactor is usually around 40 years. At 53, Dimona is one of the world's oldest operating nuclear plants.

The reactor, which was supplied by



Tough times in the garment trade

France, was switched on 15 years after the establishment of the state of Israel. The embattled country's first prime minister, David Ben-Gurion, insisted that Israel needed a nuclear deterrent. The programme was spearheaded by his assistant, Shimon Peres, and the main components were first activated in 1963. The government claimed that Dimona was a "textile plant".

Many of the ancillary systems in the reactor have been renewed or replaced, but the core itself cannot be swapped out. The flaws that have been detected are closely monitored and there is no serious suggestion that the reactor is unsafe. Yet in most other countries it would have been deactivated long ago. Safety concerns will only increase with time.

Israel has never used its reactors for generating electricity. Along with the United States, France, Russia and China, it is one of the few countries believed to have acquired the nuclear "triad". It can deliver nuclear weapons as bombs dropped from an aircraft, as warheads on a land-launched missile (since the 1970s) and on missiles fired from submarines.

The third leg of the triad is thought to have been added in 1999, when Israel received the first of six planned submarines. These were built and largely paid for by Germany. If, as reported, they can launch nuclear-tipped cruise missiles, this would give Israel a "second-strike" capability, allowing it to retaliate even if an enemy were to destroy its air bases and missile silos in a nuclear "first strike". In January Prime Minister Binyamin Netanyahu said: "Our submarine fleet will act as a deterrent to our enemies who want to destroy us."

Nuclear experts estimate that Israel has between 80 and 200 warheads, more than enough to deter would-be attackers. The dilemma facing Israel is whether to close the ageing reactor that helped make them. If it does, it would be unlikely to get the materials needed to build a new one, since it has never signed the nuclear non-proliferation treaty. Yet Uzi Even, a former member

of the IAEC and Dimona scientist, argues that the reactor should be shuttered. (A smaller and older reactor, supplied by America in 1960 for research purposes, is scheduled to be deactivated in 2018 and replaced by a particle accelerator.)

Dimona's defenders say it has both symbolic value (as a reminder that Israel will defend itself fiercely) and practical uses, too. It is a source of materials needed to maintain nuclear warheads, such as tritium (which decays, but could theoretically be produced or procured by other means). It is also the centre of a "secret kingdom" of scientists whose capabilities the government is loath to give up.

For nearly six decades, Israel's policy of "nuclear opacity" has served it well. Its Arab neighbours are convinced it is a nuclear power, but Israel clings to the ambiguous formulation that it "will not be the first to introduce nuclear weapons to the region", neither acknowledging nor denying its capabilities. With powerful neighbours still openly advocating its destruction, the Jewish state will keep its doomsday weapons. But its ageing reactor? Perhaps not. ■

Uganda's president for life

The "people's president" is jailed

KAMPALA

Yoweri Museveni clamps down on the opposition

IN A shaky video, Kizza Besigye, the main opposition leader in Uganda, holds aloft a Bible and is sworn in as head of a "people's government". It is more amateur dramatics than revolution. The production may have been shoddy, but the timing of its release was provocative, coming the day before the re-inauguration of Yoweri Museveni as president. Within a few hours of the footage being released, Mr Besigye had been whisked away by helicopter to a remote prison. On May 13th he was charged with treason: police claimed to have found 20 machetes at his party headquarters.

Mr Museveni has held power for 30 years and Mr Besigye, a former ally, has spent half that time trying to dislodge him. February's election was the fourth contest between the two, with the usual result. The playing field was uneven, with state institutions bent to Mr Museveni's will.

Mr Besigye claimed "a creeping military coup", and promised to respond with "defiance". His following in the cities raises the possibility of mass unrest. But Mr Museveni is having none of it. Protests have been banned, as has live coverage of them. Policemen patrol the capital and plainclothes thugs beat demonstrators. Even before his most recent arrest Mr Besigye's ►►

► movements were restricted—at one point he was under house arrest for 43 days—and party activists are frequently detained.

Mr Besigye has been charged with treason before, in 2005. That case dragged on for five years before charges were dropped. Treason is a capital offence, but the state doesn't expect a conviction, says Peter Magalah, a lawyer at Chapter Four, a human-rights group in Kampala. The aim is to keep Mr Besigye off the streets.

Such repression is not new, says Frederick Golooba-Mutebi, a Ugandan political analyst. He thinks that tempers may cool now the election has passed. But some analysts detect a hardening mood in the cities. People are chafing under the most restrictive political climate in a decade. Recent laws give police wide powers to

halt public gatherings and shut down civil-society groups. The resurgence of Mr Besigye—who just a year ago seemed a spent force—has worried the regime.

Yet for all Mr Besigye's charisma, the threat from the opposition is limited. It is poorly organised and weakly represented in parliament. That makes it easier for Mr Museveni, who is now 71, to remove a constitutional restriction forbidding presidential candidates who are over the age of 75. That would allow him to run again in 2021.

Though Western donors tut about civil liberties, Mr Museveni can afford to ignore them if, as he hopes, oil starts to flow in a few years. He was always suspicious of political competition, which he blames for Uganda's violent past, and sees less reason than ever to change course. ■

Protests in Kenya

Of kicking and Kikuyu

NAIROBI

Protests and repression bode ill for elections next year

THE picture resembles something from a futuristic dystopia. A police officer in camouflage and purple body armour, a riot shield in his hand, holds his booted foot over the head of a protester, (see next page) apparently ready to stomp it into the kerb. The scene was captured on May 16th in downtown Nairobi, the capital of what is meant to be one of Africa's most stable and hopeful countries. It is an ugly glimpse of a potentially difficult year ahead, as Kenya prepares for presidential elections scheduled for August 2017.

The protests were organised in Nairobi by the main opposition party, CORD, and its leader, Raila Odinga. They were to demonstrate against Kenya's Independent Electoral and Boundaries Commission (IEBC), which Mr Odinga accuses of being corrupt and biased towards Jubilee, the ruling alliance of Uhuru Kenyatta, the president. Protests were also broken up in Kisumu and Kisii, two cities near Lake Victoria. Police used tear gas and water cannon as well as their batons. At least 15 people were arrested and, according to local television reports, one victim died.

Mr Odinga has a point about the IEBC. It is "a thoroughly corrupt, incompetent organisation with heavily compromised commissioners", says John Githongo, a journalist and veteran anti-corruption campaigner. In particular, members of the commission are alleged to have received kickbacks from a British firm in exchange for contracts to print ballot papers. In 2013 two of the firm's executives went to prison in Britain for paying bribes, but none of the recipients has ever been punished.

Yet the protests—and the government's thuggish response—will unnerve investors in Kenya more than the specific allegations. Kenya's politics tend to be fought on tribal lines. Mr Kenyatta, who took power in 2013, is from the Kikuyu tribe, which has dominated government for 29 of the 52 years since independence. He won power by building a coalition with the support of his deputy president, William Ruto, who is from the Kalenjin-speaking subgroup. Mr Odinga is from the Luo, a large group who have never held power (though one of their sons is president of the United States).

In 2007 allegations that the election was rigged led to about 1,200 murders. Luos and Kalenjins killed Kikuyus, whom they accused of stealing the vote. Bands of Kikuyus then retaliated, rampaging through rival neighbourhoods. The vio- ►►

Sloshed in the slow lane

How to drive drunk in Kenya

NAIROBI

Clever tricks for beating the breathalyser (but not death)

AT A bar off Langata road, a main highway in Nairobi, Kenya's capital, business has been struggling of late. The problem, the manager says, is that his bar is inconveniently positioned between two crossroads where officers from the police and the National Transport and Safety Authority (NTSA) often put up roadblocks to check if drivers have been drinking. "It is right what the government is doing," he says. "But it is really squeezing us. These people with their alcoblow have taken away all of our customers."

The "alcoblow"—what Kenyans call a breathalyser—is relatively new in Nairobi. An effort to introduce the devices in 2006 was thwarted when drivers got a court to declare that their rights were being violated. But a traffic act in 2012 toughened penalties for drunk-driving; since then, breathalysers have been used at traffic stops. In March the NTSA acquired 45 new vehicles, from which officers can patrol and pull over drivers they suspect of imbibing.

Yet in a country where getting round annoying rules is a national sport, and where cops are seen as extractors of bribes rather than upholders of the law, many people find ingenious ways to get away with driving drunk. In the bar on Langata road, the manager admits that when the police are around he will use the speakers to issue updates about where the road blocks are. The information comes from a network of drivers who, on a Saturday night, run a thriving business driving tired and emotional customers in their own cars past the checkpoints (but not all the way home).

It is not just this bar. On Facebook, to

which a growing number of Kenyans are addicted, a page called "alcoblow watch" provides updates on where officers are. Others go further. Drive on Nairobi's roads late at night at a weekend, and you may see dizzy drivers reversing backwards up a dual carriageway to an exit or doing perilous U-turns ahead of the police checkpoints.

Amusing as these dodges may be, the consequences are not. In 2013 as many as 13,000 people died on Kenya's roads. In Britain, which has a somewhat bigger population and vastly more cars, the figure was 1,700. Of the ten most dangerous countries in the world for road deaths, only two, Iran and Thailand, are not in Africa. And the number of Africans who can afford to buy cars and lots more beer is only going up.



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your supplier → ADD PASSWORD

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on your desktop

or your tablet

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All Yours.





A boot stamping on a human face—for now

► lence was clearly organised, yet no one has been prosecuted for organising it.

Some fret that mayhem will break out again. Elections in 2013 passed off relatively peacefully, largely because people feared a repeat of 2007, says Mr Githongo. But next year may be different. Although Mr Kenyatta's and Mr Ruto's partnership ought to be strong enough for the pair to win a second term, it is not guaranteed. Suspensions that the vote will be rigged in

their favour could well spark killings.

The police, meanwhile, are suspected of other misdeeds. Jacob Juma, a businessman who had been a prominent critic of the government, was murdered in his car on May 5th. Mr Odinga has alleged that the police were responsible. The government dismisses his claim as political opportunism. But it will need to convince a lot of Kenyans of its honesty if the next election is to pass without much bloodshed. ■

Nigerian petrol subsidies

A fuel and your money

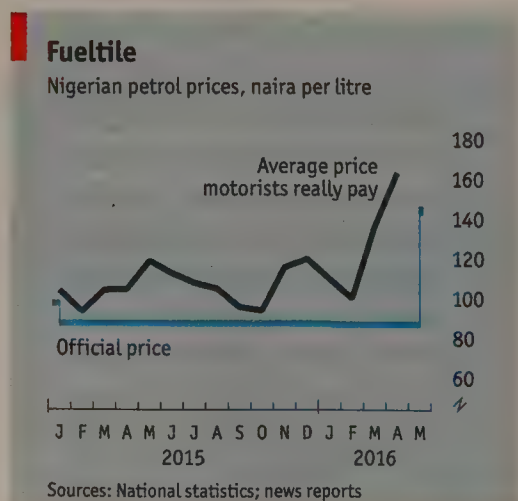
LAGOS

Petrol prices are now a bit more realistic. Will the naira be next?

NIGERIA'S previous attempt to reduce the vast sums it squanders on fuel subsidies did not go well: protesters poured onto the streets after the price of fuel doubled in 2012. Shops, schools and petrol stations shut and the government was forced into an embarrassing U-turn. Now a new administration led by Muhammadu Buhari, a former military ruler, is taking another shot at reform. Last week the official price of petrol was jacked up 67%, to 145 naira per litre (\$0.43 at black-market rates). Restrictions on who can import the stuff were also lifted.

The new petrol price is still well below a true market price, but it is a start. Price controls fuel a huge racket: importers are paid the difference between the market rate and the Nigerian one. The government argues that the subsidy helps the poor. In fact the scheme is a cash machine that spews public money into the hands of fuel importers, employees of the state-owned oil com-

pany and government officials who colude to pocket cash paid to subsidise fictitious imports. In 2011 (the peak year), some \$14 billion in hard currency was squandered on petrol subsidies. Truckloads of Nigerian petrol are smuggled abroad and



sold at market prices, leaving Nigerian pumps dry.

Since 2014 the government's finances have been thrown into disarray, thanks to a collapse in the price of oil, which accounted for 90% of federal revenues, and disruptions to production by militants who blow up pipes and kidnap oil workers. The fiscal deficit almost doubled to 4% of GDP in 2015 and economic growth slumped to 2.7%, the slowest since 1995.

Because oil is cheap, the subsidy payments have fallen too, easing pressure for reform. But there are still good reasons to end subsidies and free prices completely. That should end petrol shortages at a stroke. It would also give investors an incentive to build oil refineries in Nigeria, which would be lunacy now.

Another pressing reason to deregulate is that Nigeria faces a chronic shortage of dollars. Since oil prices slumped, the trade deficit has ballooned. An open economy would adjust to such a shock by allowing its currency to devalue, making imports costlier and locally produced goods more attractive (although higher inflation would be a nasty side-effect). Instead Nigeria has insisted on defending its currency, the naira, keeping the official exchange rate pegged at 197 to the dollar. (On the black market it trades for 340.)

The country needs about \$18m-worth of fuel imports each day (and tens of millions of dollars more to feed and clothe its people and buy spare parts for factories). Reserves have fallen to \$27 billion—the equivalent of about seven months' supply. The central bank cannot provide enough dollars at the official rate to pay for all these imports and it releases only about \$200m a week. This has opened new avenues for graft: people with access to cheap dollars can nearly double their money in minutes by selling them on the black market.

Businesses without connections typically have to buy dollars there. That has translated into higher prices for almost everything, including petrol, which was supposed to sell at an official rate of 87 naira per litre for the past year but in fact sold last month at an average of almost 163 naira (see chart).

The only way to match the supply of and demand for fuel and dollars is to let the market determine the price of both. Some analysts think that the government's raising of fuel prices is a prelude to letting the currency slide. The central bank denies it.

One lonely union has organised a strike against pricey petrol, but it lacks support. Protesters were reportedly stoned in Jos, a city in the centre of the country, when they encouraged traders to close their shops. A reversal seems unlikely. "I protested in 2012 but I wouldn't do it again," one civil servant says as his car snakes through a queue in the capital. "Nigerians have been ripped off. Something had to change." ■



Azerbaijan

Baku to the future

BAKU

A post-Soviet autocracy tries to transmute black gold into modernity

NEXT month around two dozen Formula One racecars will speed through the gleaming centre of Baku, the capital of Azerbaijan. They will zoom along the shore of the oil-rich Caspian Sea, past five-star hotels and shops displaying Brioni suits and Chopard watches. They will also race past the less attractive side of Azerbaijan: its sputtering economy, oppressive political system and simmering conflict with Armenia. At such speed, it will be hard to spot the signs of insecurity in this former Soviet republic of 10m people squeezed between Iran, Turkey and Russia.

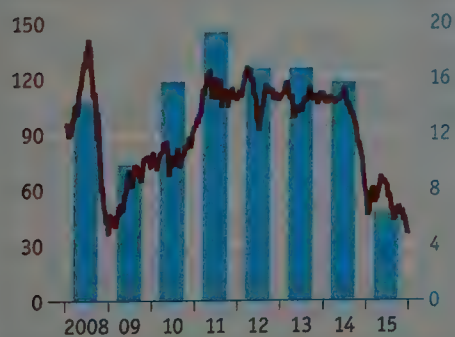
Formula One's European Grand Prix is a fitting vanity project for Azerbaijan. The country has transformed itself from a fail-

ing state in the early 1990s to a rich and corrupt oil economy. Between 2003 and 2015 oil and gas revenues were \$119 billion; the cash was spent on infrastructure, weapons and ostentatious follies. Some of the money the country earned from oil and gas mines has been funnelled into powerful people's offshore accounts. But enough of it trickled down to fuel strong domestic demand, largely satisfied by imports.

When the oil price crashed, the music stopped. Baku's taxi-drivers now grumble about rising prices and the money being wasted on the Grand Prix. Azerbaijan had to devalue its currency twice last year, after its central bank burned through some \$10 billion of foreign-currency reserves trying to defend the manat. Banks are weighed down by some \$2 billion of unpaid loans, say some analysts. The State Oil Fund of Azerbaijan (SOFAZ), which takes in all of the country's oil and gas revenues, is still sitting on \$35 billion—roughly equal to a year's GDP—but spending has been cut back and the budget now conservatively assumes a price of \$25 a barrel.

Azerbaijan has also been hit by the recession in neighbouring Russia, where hundreds of Azerbaijanis once worked. The economy was 3.5% smaller in the first quarter than a year earlier. Inflation is in double digits. Rising bread prices caused riots in several regions, quickly pacified with cash and police truncheons.

Oil's not well

Brent crude oil price
\$ per barrelAzerbaijan state oil and
gas revenue, \$bn

Sources: Thomson Reuters; State Oil Fund of Azerbaijan

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Azerbaijan's political clans, who control much of its economy, have been jolted out of their comfort zone. For much of his rule the legitimacy of Ilham Aliyev, the autocratic president who inherited his post from his father, rested on Western-operated oil and gas projects. Now he must choose between modernising the country or becoming more dictatorial.

Spooked by the Maidan revolution in Kiev in 2014, Azerbaijan copied some of Russia's repressive practices. Non-governmental organisations were deemed agents of foreign influence; dissidents were jailed. But Russia's annexation of Crimea and the war in eastern Ukraine worry Mr Aliyev, too. Azerbaijan's Nagorno-Karabakh region is occupied by Russian-backed Armenia (see box on next page), and has long resisted the presence of Russian troops in the region. Struggling to cope with cheap oil and the need to finance energy projects, Mr Aliyev is now seeking to repair relations with the West.

Shortly before his trip to Washington, DC, for a nuclear-security summit in March, Mr Aliyev released a number of political prisoners. But he kept two promi- ▶▶



► nent ones in jail: Ilgar Mammadov, leader of REAL (“republican alternative”), a pro-Western opposition movement; and Khadija Ismayilova, an investigative journalist and anti-corruption activist. To dodge the security services, REAL cells now masquerade as cyclists’ associations or book clubs. Natiq Jafarly, the group’s secretary, says there has been an inflow of new members from small businesses and even from the state oil firm, Socar.

To appeal to the middle class, Mr Aliyev is trying to modernise the country while maintaining a tight grip on politics. He has launched a “one-stop shop” public-services bureau that largely eliminates the need to pay bribes for official documents. Mr Aliyev has sacked the chief of Azerbaijan’s security service, the organisation which succeeded the local KGB (once headed by Mr Aliyev’s father). He has also

promised to reform the economy. “We were planning to do reforms in about ten years’ time. Now we have to do them a lot sooner,” says Natiq Amirov, Mr Aliyev’s assistant for economic reforms. The country has built plenty of infrastructure, he says; what it lacks is human capital.

Azerbaijan has been talking about diversifying its economy for years. Now that “empty rhetoric” is starting to inch towards reality, says a Western diplomat. The model for the reforms is Malaysia. Much of the elite believes it can import economic reforms without touching the political system—just as London-style taxis have been brought over to cruise Baku’s streets, and the first lady’s favourite restaurant has been imported from Marbella, chef, cutlery and all.

Azerbaijan lacks a bureaucracy capable of reform. (The very word scares public-

sector workers, says Mr Amirov.) But it does have bright young Western-educated talent. Taleh Ziyadov, who holds a doctorate from Cambridge University, heads the free-trade zone at Baku’s new port, a point on China’s “One Belt, One Road” infrastructure link to Europe. “We don’t have time to wait for the whole country to reform,” says Mr Ziyadov.

The training ground for this new elite is the Azerbaijan Diplomatic Academy (ADA), a leafy, modern campus next to a zoo. The curriculum is entirely in English; many of the staff are international. Its director, Hafiz Pashayev, is the 75-year-old uncle of Azerbaijan’s first lady and a former ambassador to Washington. Its mission, he says, is “to create a special milieu where students are free to think”.

Mr Pashayev, a former Soviet physicist, is well aware that ADA’s graduates will eventually press the existing elite for more power, just as the Soviet intelligentsia did in the 1980s. But as a member of one of the country’s powerful families, he hopes to foster a managed succession of the elite, rather than a radical break of the kind that happened in Georgia or Ukraine.

That a clan-based autocracy can pull off such a modernisation programme seems doubtful, but nationalism is a strong motivator. “Our objective is to propel the country to the top position in the world,” says Mr Pashayev grandiosely. ADA might succeed. But in a country of oil wells and fast cars, the lure of rent-seeking and corruption is strong. ■

Nagorno-Karabakh

A squalid little war

SARIJALY

Twenty years on, Azerbaijan and Armenia are fighting in the same trenches

THE road to Agdam, a small town that was once part of Azerbaijan, runs out abruptly and turns into a front line. Soldiers walk nervously along the mound of earth that separates Azerbaijan from Nagorno-Karabakh, a disputed territory controlled by Armenia since the two countries fought a war in the early 1990s. That war left at least 20,000 dead and a million displaced. Most of the conscripts are younger than the conflict, and have seen Armenians only through a slit window in a machinegun redoubt.

The conflict has been simmering ever since, and in early April it erupted again. Azerbaijan’s well-equipped troops staged an offensive, retaking a couple of hills. Total deaths, on both sides, were estimated at 200. But the psychological effect of the “four-day war”, as it is now

called in Azerbaijan, vastly exceeded the military gains. Baku was filled with national flags as crowds celebrated Azerbaijan’s first “victory” since the humiliating defeat 20 years ago.

“Psychologically, it was like Stalin-grad. It proved that we can achieve victories,” says Fariz Ismailzade, a vice-rector of ADA university in Baku. Many were furious that Azerbaijan’s army stopped after Russian interference.

Russia is both a mediator and a party in the conflict: it has military bases in Armenia and sells arms to both sides. The standoff allows Moscow to keep the entire region on tenterhooks. “Had it not been for Russia, we would have probably settled the conflict by now,” says Elkhan Shahinoglu, the head of the Atlas Political Research Centre in Baku.

Both Azerbaijan and Armenia are weary of Russia. Serzh Sargsyan, Armenia’s president, shunned a Russian invitation to come to Moscow for talks with his counterpart in Azerbaijan, Ilham Aliyev. Armenia, meanwhile, was angry that Russia did not back it fully in the clash. Instead Mr Aliyev and Mr Sargsyan met in Vienna on May 17th, along with the foreign ministers of Russia, France and America, and agreed to hold more substantial talks next month.

Turkey, Iran and Russia all have interests in the South Caucasus, and none wants a full-blown war. But the patriotic euphoria in Azerbaijan and Armenia may not be entirely controllable. In the Caucasus emotions often run too hot for reason to prevail.

Turkey v Islamic State

Poking the wolf

GAZIANTEP

The jihadists may be goading Turkey to invade Syria

THERE are no sirens or warnings of any kind. In Kilis, a border town of about 200,000 in Turkey’s south, rockets fired by Islamic State (IS) terrorists from nearby Syria fall from the sky, tearing through buildings and cars. “You have a few seconds to take cover and then, boom,” says Mustafa Cerrah, an estate agent, standing near the site of a blast that killed four Syrian refugee children. Since the start of the year, the rockets have left 21 locals dead.

Turkey has responded by pounding IS positions with artillery. “Turkey has done as much as it can, but it is still not enough,” says the town’s mayor, Hasan Kara. The only way to prevent attacks, he says, echoing the national government’s position since the start of the bloodshed, is to establish a safe zone in northern Syria. Western states are lukewarm about the idea. “Our



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Islamic State is not winning hearts and minds

► security is not a priority for many of our allies," complains a Turkish official.

IS has been doing more than firing rockets. Since last year, suicide-bombers linked to the group have killed more than 150 people across Turkey. On May 1st a home-grown jihadist detonated a car bomb in front of a police headquarters in Gaziantep, a southern Turkish city, killing two officials. Weeks earlier, IS shelled a border post about 80km east of Kilis and a Turkish training base in northern Iraq. Its propaganda increasingly calls for attacks on Turkish forces. A recent edition of an IS magazine featured a photograph of a captured Turkish soldier believed to be held in the group's Syrian stronghold, Raqqa.

Despite a wave of arrests, IS's network in Turkey is strong, especially in large urban areas. In Gaziantep, Syrians opposed to the group fear for their safety. For IS, says Abd Hakawati, a journalist who fled Syria last year, "nothing is impossible here. No one knows who is next." IS loyalists have killed four Syrian activists in Gaziantep and Sanliurfa, another city close to the border, since last October. Mr Hakawati has been threatened several times, including by a man who held a knife to his throat. "I've been sentenced to death," he says.

Most observers see IS's latest attacks as retaliation against Turkey and America, who have been trying to clear the group from a 98km-long strip of land along the border, with assistance from Syrian rebel allies. Aaron Stein, a senior fellow at the Atlantic Council, says that the rocket attacks ramped up when the offensive started. "They're trying to show that there is a price to be paid," says a Western diplomat.

Some officials think IS may be goading Turkey into a ground operation in Syria. Turkey's president, Recep Tayyip Erdogan, has not ruled one out. "We will not hesitate to take the required steps," he announced on May 12th. A few days earlier, a small team of Turkish special forces crossed into Syria to help target coalition air strikes.

Mr Erdogan does not like to lose face. But Turkey is unlikely to invade. Osman Bahadir Dincer, a military analyst in Ankara, thinks it would be a "huge disaster". Turkish troops risk getting bogged down in a fight with Russian, Iranian and Kurdish forces. Since last summer Mr Erdogan's government has lost over 300 policemen and troops to clashes with Kurdistan Workers' Party insurgents at home. "The risk of acting alone in Syria is too high for Turkey to handle," says Mr Dincer. ■

Steak in France: ever rarer

The raw and the cooked

PARIS

Beef remains an anthropological key to French identity

"THERE is no alimentary constraint which does not make the Frenchman dream of steak," wrote Roland Barthes, a French literary theorist, in 1957. Rare, in a lightly charred crust, it is the "comfortable bourgeois meal". Flat and yellow-edged "like the sole of a shoe", it forms the "bachelor's bohemian snack". An expression of muscular full-bloodedness and patriotic values, wrote Barthes, steak "communicates its national glamour" to the humble *frites* (chips) with which it shares a plate.

The French still tuck into more steak than any other European country, bar Denmark. They put away 25 kilograms (55 pounds) of beef per head every year, the equivalent of two generously cut steaks each week—fully a third more than the British (whom the French have long liked to call *les rosbifs*). A butcher's display in France is a sumptuous celebration of scarlet bovine flesh. The habit is deeply rooted. Honoré de Balzac ate a steak a day while

writing his novels. Auguste Escoffier, a French chef who brought fine dining to London in the 1890s, meticulously listed the cooking instructions (and sauces) for each cut. Do not flatten raw steak, he ordered, or this will "break the fibres, prompting the blood to separate from the flesh during cooking" and hence drain it of its glorious flavour.

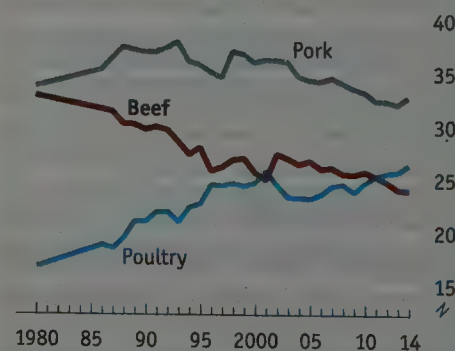
Yet today steak consumption has gone into an unprecedented decline, as poultry sales have overtaken beef. Since 1990 beef consumption in France has dropped by 20%, while that of poultry has risen by a quarter. One reason is simply that beef is pricier. Health concerns about excessive intake of red meat have also played a part. Recent reports exposing cruelty to animals at a few French slaughterhouses will not have helped, either.

Above all, the rise of *le sandwich*, now commonly consumed at lunch by office workers in Paris, has robbed traditional brasseries of sit-down clientele. Over 2 billion sandwiches are sold each year in France, with home-grown chains such as Cojean or Paul competing with foreign brands like Pret A Manger. "We still buy quality meat at the butcher," says Denis Lerouge of Interbev, a meat-industry lobby, "but we are increasingly replacing *steak-frites* at lunchtime with a chicken salad."

It is hard nonetheless to imagine steak losing its place on the menu, or in the French mind, altogether. In contrast to its place in Anglo-Hispanic culture in North and South America, steak in France is not linked to the masculinity of horseback cattle-ranching. It has more to do with French rural tradition and *terroir*: the sense of local identity that links what is on the plate to its regional origin, such as the Charolais or Limousin breeds of cattle. "At the weekend" people still want to bring the family together around a *rôti de boeuf*, says a Paris butcher, tying up a fresh cut with cotton twine and a firm butcher's knot. Red meat remains linked in the popular imagination to strength and virility, as Patrick Rambourg, a food historian, notes. As for vegetarians, in France they are still as rare as, well, a perfectly cooked steak. ■

Steak ta ta

Annual meat consumption in France, kg per person



Source: Ministry of Agriculture

Plebiscites in Europe

Referendumania

AMSTERDAM

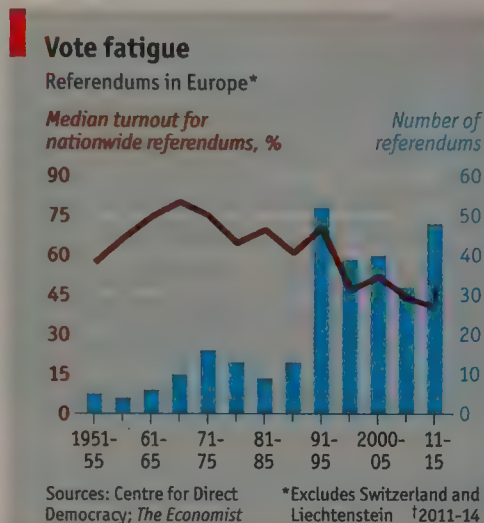
Direct democracy is spreading across Europe. That is not always a good thing

JAN HERFKENS, a 25-year-old law student in Amsterdam, did not want to vote in the Netherlands' recent referendum on the European Union's trade deal with Ukraine. "We already have one big referendum," he says, meaning the general election; he would rather elect representatives to handle policy issues than vote on them himself. The rejection by 61% of voters of the trade deal only created "disorder and chaos" for the government, he thinks.

Mr Herfkens seems to be in the minority. Europe is seeing a rising tide of referendums. In the 1970s, on average, three were held each year. Now the figure is eight (not counting Switzerland and Liechtenstein, two countries with long traditions of direct democracy). Britain's referendum on whether to leave the EU is due on June 23rd. Italy will hold one on its constitution before October; Viktor Orban, Hungary's prime minister, plans one on the EU's migrant relocation scheme. In the Netherlands activists are preparing to take on the EU's trade deal with Canada and the Transatlantic Trade and Investment Partnership, another trade proposal.

Fans of direct democracy argue that it engages citizens. Referendums "stimulate debate", claims Anne-Marie Mineur, a Dutch socialist MEP. In Switzerland voters get pamphlets full of charts on the issues each time they go to the polls. Since Scotland's referendum vote in 2014 to stay in the United Kingdom, interest in politics has surged there, says Matt Qvortrup of Coventry University. Certainly, membership of the pro-independence Scottish National Party has soared: it has gone from 25,000 before the vote to over 100,000 now. More than three-fifths of Ireland's population voted in its referendum on same-sex marriage last year, and hundreds of young expatriates still on the voting register flew back to take part.

But the recent referendums are not just wholesome exercises in civic engagement. They also reflect widespread alienation from politics and anger at the governing class. Support for old political parties has withered, while populist, anti-EU parties are gaining ground. Governments derided as elitist and out of touch find it hard to resist calls to submit controversial issues to a popular vote. The most vulnerable target is the EU—and not just in Britain. According to Ipsos-MORI, a pollster, 58% of Italians and 55% of the French now want a referendum on EU membership (though slightly



fewer actually want to leave).

Some referendums are called by mainstream politicians trying to fend off pressure from populists, as with Brexit. Others are pushed by populist leaders mustering ammunition against EU policies they dislike. Mr Orban, who is fighting against the European Commission's plan to distribute refugees among member states, intends to ask his compatriots: "Do you agree that the European Union should have the power to impose the compulsory settlement of non-Hungarian citizens in Hungary without the consent of the National Assembly of Hungary?" (Note the scrupulously neutral wording.) Still other referendums are pushed by single-issue groups, often with an anti-EU slant. The Dutch Ukraine vote was launched by Eurosceptic activists taking advantage of a new law that grants a referendum on any issue that can attract 300,000 supporting signatures. The vote became a proxy for discontent with the EU, not just the trade deal.

Referendum fever poses several problems. For a start, it makes it increasingly hard to agree on transnational policies. Treaties are generally signed by governments and then ratified by legislatures. Adding referendums to the mix hugely complicates matters. "It's almost impossible now to see how 28 states would ratify an EU reform treaty," says Stefan Lehne of Carnegie Europe, a think-tank. Minorities of voters in smaller countries may be able to stymie Europe-wide policies; just 32% of Dutch voters took part in the Ukraine referendum. This could cripple the European project. "Europe cannot exist as a union of referendums," says Ivan Krastev, head of the Centre for Liberal Strategies, a Bulgari-

an think-tank.

Referendums can lead to incoherent policies. Voters looking at issues in isolation may approve measures that conflict with each other, such as voting for higher spending and big tax cuts, as they often have in California. Direct democracy cannot magically abolish maths.

Liberals cheered when an Irish plebiscite legalised gay marriage in 2015. But some argue that human rights should not be subject to majority vote. What a majority gives, it can also take away.

The idea that referendums foster engagement is questionable, too. As they have proliferated, the median turnout for nationwide referendums has fallen from 71% in the early 1990s to 41% in the past few years (see chart). Of eight referendums in Slovakia since 1994, only one on EU membership had a turnout higher than the threshold of 50% required for the result to be valid. Such apathy can be costly. In Italy a referendum in April pushed by local governments (and opposed by Matteo Renzi, the prime minister), on whether or not offshore oil rigs should continue operating, did not reach the 50% turnout required—but still cost around €300m (\$340m).

Paradoxically, then, referendums may end up increasing voters' alienation. In countries such as Switzerland, the political system has adjusted to them. But elsewhere, thinks Catherine Fieschi, director of Counterpoint, a British think-tank, they tend to make politicians look as if they do not know what they are doing. This is especially likely when governments cannot provide the result that voters demand (as in the Netherlands' Ukraine vote—the 27 other EU members have little interest in renegotiating the treaty just to satisfy a few Dutch voters).

Direct democracy is fine for things that don't matter, such as the Eurovision song contest. But it is no way to run a country, let alone a continent. ■



Charlemagne | Vexed in Vienna

One of Europe's most steadfastly dull countries has suddenly turned interesting



WHAT is Austria's problem? In Vienna the streets are clean, the trams rattle reliably past and the bow-tied waiters still dispense their *Sachertorte* with supercilious smirks. The country is well-run, prosperous and secure. There are no neglected *banlieues*. Even the refugees who poured through last year have stopped coming. And yet Austria is on the verge of electing a far-right president from a party with an unsavoury past.

Last month, for the first time in post-war Austria, voters in the first round of a presidential election spurned the candidates backed by the centre-left Social Democrats (SPÖ) and centre-right People's Party (ÖVP), which run the country in a "grand coalition". In Sunday's run-off they must choose between Norbert Hofer, the fresh-faced candidate of the far-right Freedom Party (FPÖ), or Alexander Van der Bellen, an aged professor backed by the Greens. Mr Hofer is the favourite, and the rest of Europe is alarmed.

The FPÖ operates from a familiar populist-right playbook. The suits have grown sharper while the outright racism has been cloaked. The hostility has shifted from Jews to Muslims, a strategy that resonates with voters of Serbian background, whom the party has assiduously cultivated. Its leaders prefer social media to the traditional kind. Its base is poorly educated rural men. It has no good words for America but plenty for Vladimir Putin.

If he wins, Mr Hofer is unlikely to wreak constitutional havoc. But should Heinz-Christian Strache, the FPÖ's chairman, become chancellor at the next federal election (due in September 2018, if not sooner), some fear a Hungarian-style attack on independent institutions. Others worry about squabbles with neighbours; Mr Strache has mused that the German-speakers of South Tyrol, across the Italian border, might like to rejoin their Austrian brethren. What do voters see in this outfit?

For decades Austria was a living example of the old saw that there is no point in voting because the government always gets in. The Second Republic, established after the war, has been run almost without interruption by either, or (usually) both, the SPÖ and the ÖVP. Under Austria's *Proporz* system, jobs, housing and business licences were doled out on the basis of party membership. Laws are written by party-affiliated labour or business groups and handed to parliament to rubber-stamp. Even now

two motoring associations and two mountain-trekking clubs exist, to ensure that Austrians need never dally with another political tribe when their cars break down or when on an Alpine stroll.

This arrangement worked when growth was high and jobs plentiful. But when the system faltered, cronyism made an easy target for genuine opposition parties. Austria, which never went through a thorough German-style post-Nazi reckoning, was not inoculated against a xenophobic party like the FPÖ. The party chugged along for years as a political also-ran, until hostility to the clubbiness of Austrian politics lifted it into the major league.

The FPÖ became a serious force in the late 1980s under a charismatic leader, Jörg Haider, who was not averse to praising Nazi Germany. In 1999 it won 27% of the vote and joined an ÖVP-led coalition. (Austria's horrified EU partners briefly cut diplomatic links.) But after a flurry of early reforms the government turned out to be no less wedded to the methods of patronage than its predecessors. The extent of the corruption the FPÖ practised while in office is only now emerging.

The party split, and for a while sank. Mr Haider died in a car crash in 2008. But last year's refugee crisis revived it. Austria's hapless social-democrat chancellor, Werner Faymann, initially supported Germany's open-door policy before pirouetting gracefully towards border closures and asylum quotas, as the FPÖ had advocated from the start. The grand coalition fed the discontent with aimless rows. The FPÖ has now topped polls for over a year. On May 9th, under pressure from his disgruntled party, Mr Faymann abruptly resigned.

After being sworn in this week his successor, Christian Kern, admitted that the grand coalition was losing voters' trust. His speech also revealed the constraints on the government. Mr Kern backed Mr Van der Bellen for president but was unable to offer the SPÖ's formal support, because many of its members hope to join the FPÖ in coalition. The ÖVP feels the same. The government now has its last chance to show that it has not run out of ideas. There is plenty to do, from schools reform to slashing red tape to constitutional changes. Some 90,000 asylum-seekers need integrating. "The ÖVP, and in particular the SPÖ, thought reforms would lose them elections," says Franz Schellhorn, director of Agenda Austria, a think-tank. "Now the opposite is true."

The best lack all conviction

The centre is struggling to hold all over Europe. In Austria the mainstream parties did their best to turn politics into dull mush, yet it has suddenly turned hard and consequential. The SPÖ and ÖVP, having brought rising living standards and preserved social peace for decades, are visibly out of ideas. Many Austrians cannot take apocalyptic talk of the FPÖ's rise seriously. In France voters unite behind candidates they dislike to block the far-right National Front. But Mr Van der Bellen can rely on no such coalition to propel him to the presidency. For voters of a conservative bent Mr Hofer may actually represent the safer option.

So in many respects this is an Austrian story as much as a European one. But these days every European election carries a larger meaning. Far-right parties across Europe will cheer a victory for Mr Hofer on Sunday; liberals will lament it. Austria is not about to return to the 1930s. But the election of Western Europe's first far-right head of state would still mark a solemn moment. Austria's do-nothing coalition is on the front line of a struggle that many other centrist parties across Europe are facing. Some appear to have given up. This is Austria's problem. But it is also Europe's. ■



Faith and race

Integration nation

BURNLEY AND NEWHAM

Are Britons of different backgrounds coming together or drifting further apart?

BENEATH a photograph of the queen, flanked by union flags, Britain's newest citizens pose for an overeager cameraman in the registry office of Newham council. In a short ceremony, officiated by a man who fled the Sri Lankan civil war in the 1980s, six Bangladeshis, two Indians, a Pakistani, an Afghan, a Pole and a Hungarian have just sworn allegiance to the crown, pledging to give their loyalty to Britain and to "uphold its democratic values". They all stand for the national anthem, a small child blows a loud raspberry, and their new life begins.

The ceremony is emblematic of the best of multi-ethnic Britain, of immigrants promising fealty to their new country and its values. Yet the mere fact that these ceremonies exist is symptomatic of deeper fears that the picture of a happily integrating country might not be so rosy after all. Citizenship tests were introduced in 2002 because of a realisation by the then Labour government that the laissez-faire approach to immigration and ethnocultural diversity had not necessarily led to the integration and social cohesion that had been expected. The tests and ceremonies were to start inculcating a sense of common values that had previously been lacking. Since then, however, a small band of critics has been warning that politicians still remain far too complacent about the problems provoked by Britain's diverse society.

The most celebrated of these critics is

Trevor Phillips, a former head of the Equality and Human Rights Commission, responsible for enforcing non-discrimination laws. Once a supporter of what he calls "organic integration", the old model described by Roy Jenkins, Labour's home secretary in the 1960s, as "equal opportunity, accompanied by cultural diversity, in an atmosphere of mutual tolerance", Mr Phillips has since become one of its fiercest critics. His views carry extra weight because he is black. Now, in his latest, most provo-

cative pamphlet, "Race and Faith: The Deafening Silence", he warns that Britain is "sleepwalking to catastrophe" because politicians are too squeamish to face up to the threats from the multicultural society.

Mr Phillips's main complaint is that in the name of multiculturalism, Britain has allowed some minority groups to drift so far away from the mainstream of the dominant majority that they now hold values and ambitions that are far away from Britain's liberal ideals. This reluctance to tackle the "dark side of the diverse society", he argues, has encouraged authorities to "shy away from confronting wicked acts for fear of having to address their ethnic or cultural component". He cites the example of the recent abuse of young white girls in Rotherham by men of mainly Pakistani origin, to which police turned a blind eye.

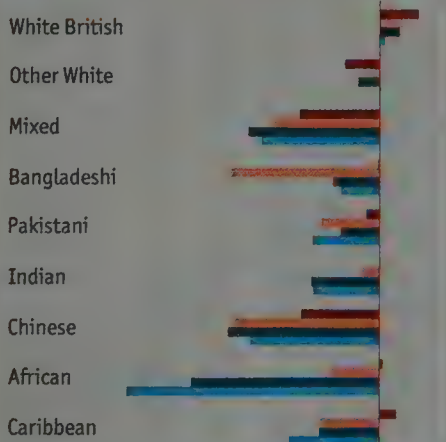
Indeed, notwithstanding the election of Sadiq Khan as the new mayor of London, it is Muslims, argues Mr Phillips, who seem to have diverged most. Polling that he commissioned for a television documentary showed that, although 86% of Muslims felt a strong sense of belonging to Britain, 32% refused to condemn people who would take part in violence against those who mock the prophet and only 52% thought that homosexuality should be legal. Consequently, Mr Phillips wants Britain to abandon organic integration in favour of a more muscular approach. His calls come as the government, in the Queen's Speech on May 18th, outlined plans to monitor internet use and new powers of intervention to disrupt extremists' activities and tackle radicalisation of children (see Bagehot).

Whether to take Mr Phillips's calls seriously depends on how far Britain is actually integrating on present trends. Here the evidence is mixed, and hotly contested. On the positive side, the number of people

Don't fence me in

Britain, % change in segregation index*, 2001-11

Inner London Metropolitan areas
Outer London Other large cities



Source: University of Manchester

* % that needs to move to create an even distribution

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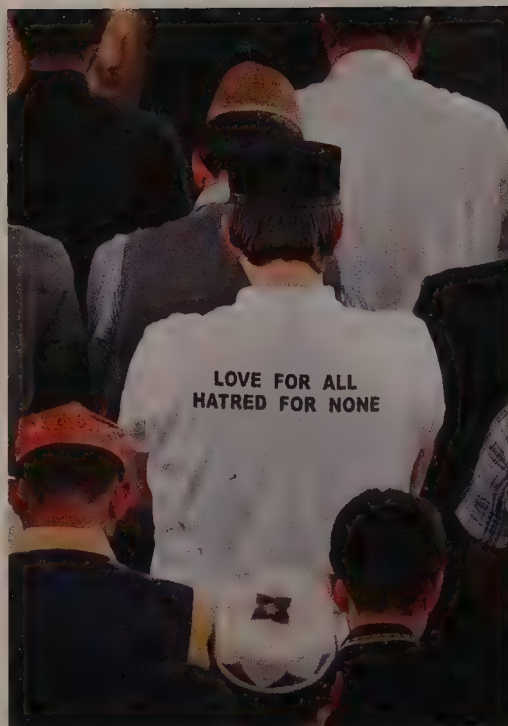
▶ claiming a mixed-race background doubled, to 1.2m, between 2001 and 2011. There has been a decline in racial prejudice. In terms of residence, the data indicate that every ethnic minority has become less ghettoised, and that the black Africans, who used to be among the most clustered, are spreading out the most quickly.

However, as Eric Kaufmann of Birkbeck, University of London, points out, there is often a movement of minorities towards “superdiverse” areas, such as Newham, where white Britons remain the biggest ethnic group but now make up only 17% of the population. From 2001 to 2011, the proportion of ethnic minorities who live in wards where whites are in a minority rose from 25% to 41%. Indeed, the only exception to the pattern of decreasing segregation for most districts is the white British (see chart on previous page), although segregation remains relatively low for this group, too, as it is large and evenly spread throughout most districts. Yet overall, as Mr Kaufmann observes, minorities are entering white areas but whites are often avoiding minority areas, producing a growing number of zones where minorities are relatively isolated from whites.

Inter-marriage, a good marker of integration, remains low, although it is rising slowly. Afro-Caribbeans are inter-marrying, and that might have something to do with the fact they are an older immigrant group. Inter-marriage shifts identities more than anything, says Mr Kaufmann. In all, this points to two separate problems, a white shift to the suburbs, and the stubborn but isolated non-integration of mainly Pakistani-origin groups in the former mill towns of the north such as Bradford, Oldham and Burnley. Here, poverty and economic decline has led to the surly separation of a left-behind, resentful white working class and a Muslim minority.

Burnley, for example, remains divided into its Bangladeshi, Pakistani and white British districts, and there is little evidence of mixing. It was from Bradford that one man recently travelled to kill an Ahmadi Muslim, setting off alarms that the sectarian divisions of Pakistan have been allowed to spread unchecked into the Muslim community in Britain (see next story).

However, Sir Robin Wales, the mayor of Newham, remains optimistic. He has pioneered a “nudge” approach to integration, rather than a muscular one. The council organises hundreds of events to encourage people to mix in neighbourhoods, and free English language tuition is offered to anyone who wants it. It does not fund single-ethnic or single-religious activities of any sort, to discourage sectarianism. Even white Britons are returning to the borough, he claims. This may be to do with the relatively cheap housing there but, if true, would show that the likes of Mr Phillips don't have to despair quite yet. ■



The murder of an Ahmadi

Preparing for the worst

Muslims divide over how to respond to a sectarian killing

THERE are few signs of life at the Stockwell Green mosque in south London at the moment. The gates are padlocked and the telephones have been disconnected. And some hope it will stay that way.

For the mosque is at the centre of a dispute within Britain's Muslim community over how it should respond to the murder of a Muslim shopkeeper in Glasgow on March 24th. The killing was particularly shocking because the victim, Asad Shah, was a member of the pacifist Ahmadiya sect, and his assailant was a Sunni Muslim from Bradford. The Ahmadiya have long been harassed and discriminated against by mainstream Muslims in Pakistan and Indonesia, and this has often turned to violence. But this was the first time it had happened in Britain.

The weeks since have led to some self-examination among Muslims. But to prevent another atrocity, outsiders say the bigotry that might have contributed to it now has to be tackled head-on, beginning with the Stockwell mosque.

The Ahmadi consider themselves Muslims, but differ from the Sunni and Shia because they believe Mirza Ghulam Ahmad, a 19th-century Indian who founded their tradition, was a latter-day prophet. In many Muslims' eyes, this makes them blasphemers. Pakistan's Ahmadis, of whom there may be 4m, were declared to be non-Muslims by the government in 1974; in effect, their faith has been criminalised.

There are about 25,000 Ahmadis in Britain, which has become something of a refuge from the violence of Pakistan.

Yet it is now clear that the sectarianism of Pakistan has pursued them to Britain, particularly in the form of the Khatme Nubuwwat movement, with which the Stockwell Green mosque is associated. The purpose of the movement (meaning “finality of the Prophethood”), which one official says started in Britain in 1983, is to refute the claims of the Ahmadiya, and to inform all Muslims that they are in fact “traitors to Islam”, as the Khatme Nubuwwat Academy's website reminds everyone. The same website helpfully lists all the fatwas against the Ahmadi in Urdu, English and Arabic. Readers learn that the “dangerous” Ahmadiya (called by a derogatory term) are a “destructive” sect with a “filthy agenda” that helps Zionism. Muslims are urged not to have anything to do with them.

One imam at the academy, a modest place in east London, argues that all this is merely “academic”, a learned refutation of Ahmadiya doctrine. However, after the death of Mr Shah the Ahmadi are asking whether this sort of propaganda is brainwashing young Muslims and inciting them to violence. The Muslim Council of Britain (MCB) has been criticised in the past for not acting to counter it. This is partly because it does not recognise the Ahmadis as Muslims either; but it has condemned Mr Shah's murder, and insists that the Ahmadis can be argued against “without vilifying or demonising them”. To this end, it has suspended the Stockwell Green mosque's membership of the MCB and has set up a panel to investigate whether it was inciting hatred. Leaflets calling for the killing of Ahmadis if they did not convert to mainstream Islam were found in the mosque after the murder of Mr Shah.

This response is too lame for some, however. One activist, Sadaf Ahmed, has launched a petition for the government to conduct an official investigation into the activities of Khatme Nubuwwat. She points out that the group's speakers travel freely to Britain to vilify the Ahmadis. Qari Hanif Qureshi, a hate preacher who called for the death of Salmaan Taseer, an ex-governor of Punjab who challenged Pakistan's blasphemy laws and was murdered for it in 2011, spoke on May 4th at Luton mosque. Ms Ahmed argues that “If we replace the word Ahmadi in any of the Khatme Nubuwwat's speeches or literature with Jew or Muslim or Hindu, we'd be disgusted at their hateful rhetoric.”

Many Ahmadis are concerned that too much casual denigration—posters in shops urging Muslims to “beware” of them, for instance—goes unpunished in the name of free speech. They fear that if the authorities, both Muslim and secular, don't crack down now, then tolerance of such intolerance will simply lead to more murders. ■

Bagehot | The Cameron legacy

The PM wants to be remembered for capturing the centre ground. Brexiteers have other plans



SOME time after his short, early-1960s stint in 10 Downing Street, Alec Douglas-Home got talking to an old lady at Berwick railway station. “My husband and I think it was a great tragedy that you were never prime minister,” she told him. To which came the embarrassed response: “As a matter of fact, I was.”

Like Douglas-Home, David Cameron is an old-Etonian, “no-blesse-oblige” sort of one-nation Conservative. But no such obscurity awaits him. His is already a substantial premiership; if he hangs on for nine months, he will have outlasted any post-war prime minister except Tony Blair and Margaret Thatcher. But for what will he be known? Now is a good time to ask. If he loses the EU referendum on June 23rd, he will probably go. If he wins, he has pledged to stand down before the 2020 election and will come under pressure from his Eurosceptic MPs to do so sooner.

Already there are two schools of Cameronology. The first considers him the far-sighted strategist who restored the Tories’ old knack for winning majorities; who not only marched his tribe into the centre ground but had it pitch its wigwams there and force the Labour Party into the left-wing wilderness; who made Britain fairer and safer in tumultuous times. At its conference last October he told his party that it could be “incredibly proud of our journey: the journey of the modern, compassionate, one-nation Conservative Party.”

The second school of Cameronology views the prime minister as an out-of-touch toff prone to complacency. It treats the litany of negative clichés about his party—its “nasty” instincts on poverty, migrants and health care; its cultural dysphoria in modern Britain; its bug-eyed neuroticism about the EU—as a roll-call of ogres Mr Cameron has declined to confront. Tim Bale, a historian of the Conservative Party, reckons that he has mostly “disappointed those who thought he might drag his party towards the centre and into the 21st century”.

Posterity will draw on both schools in judging Mr Cameron’s premiership. But in what proportions? The Queen’s Speech on May 18th should be understood in the context of that debate. As the monarch announced the bills to go before Parliament in what may be the last session of the Cameron era, it was easy to imagine the prime minister pondering his place in the history books. It is clear, for example, that he wants to go down as a leader who

made Britain secure in the age of Islamic State. There will be a crackdown on extremist websites, hardliners will be kept from working with children, and the state will strong-arm councils failing to tackle radicalisation.

The heart of the Queen’s Speech was its raft of compassionate social reforms: it proposed, for instance, to improve prisoner rehabilitation, build 1m new homes (believe that when you see it) and help the low-paid establish a rainy-day fund. All this revived the sunny centrism which defined Mr Cameron’s early leadership from 2005, much of which had been shelved as the financial crisis set in and harshened the mood. It even came with a slogan: “Improving life chances”.

The slogan should have been “Love-bombing Harlow”. Thanks partly to Robert Halfon, its energetic Conservative MP, that Essex town has become a byword for upwardly mobile but financially insecure voters—often the first generation in their families to hold white-collar jobs—who dislike government meddling but think the state should make it easier for people like them to pull themselves up by their bootstraps. Philosophically individualistic, yet too close to hardship to be libertarians, these folk suspect Labour of being too soft and the Tories of being out-of-touch. Electorally decisive, they are the landlords of the political centre; politicians are merely their tenants. Mr Cameron wants to bequeath his party a long lease.

All of which is admirable—bearing favourable comparison with a Labour Party which has lost interest in that kind of real estate—but perhaps unrealistic. For today the air is thick with insults and lurid claims flying between Tories on opposite sides of the EU debate. George Osborne, the chancellor of the exchequer, has called his pro-Brexit colleagues “economically illiterate”. On the day of the Queen’s Speech Iain Duncan Smith, a Eurosceptic who in March resigned as welfare secretary, toured the television studios calling Mr Cameron’s one-nation overtures a sham.

The thirty years war

Downing Street is doing what it can to make June 24th the “sanity day” when normal service resumes and the government gets back to chiselling out Mr Cameron’s legacy. There is talk of big jobs for Brexiteers in a “reconciliation reshuffle”; Michael Gove is spoken of as deputy prime minister and Boris Johnson as home secretary (for whom room would be made by moving Theresa May to the Treasury and Mr Osborne to the Foreign Office).

But the Brexiteers have other plans. One rumour has it that, in the event of a Remain win, 100 MPs could endorse a vote of no confidence in Mr Cameron, double the number needed to trigger a leadership election. Meanwhile his government still has a small majority and has lately performed successive U-turns as its bolder wheezes (most recently forcing state schools to become semi-autonomous academies) have fallen foul of the arithmetic. So its ability to whip through centrist, Harlow-friendly legislation in the coming months is doubtful; certain Tory MPs even talk of stymying such measures in revenge for a Remain win, or to force a second referendum.

That is pathetic. Yet the blithe premise of Mr Cameron’s decision to call a referendum—that the vote would “clear the air” in the Conservative Party—was always bunkum. It is baffling that, as one who lived through the Tory Euro-battles of the 1990s, he did not foresee the psychodrama now unfolding. The prime minister deserves a better place in the history books than the one that may now await him. But it would serve him right. ■



The United Nations

Master, mistress or mouse?

NEW YORK

Despite an unprecedented push to pick the UN's next boss by open contest, the choice will probably be a stitch-up

THE job of secretary-general to the UN is something of a poisoned chalice. The only one of its eight holders to date who is widely admired is Dag Hammarskjöld, a Swede who died in an air crash in 1961, trying to end the first of post-independence Congo's horrors. Kofi Annan, a shrewd and charming Ghanaian who held the post in 1997-2006, is seen as next best, despite patchy success in the world's trouble spots. South Korea's Ban Ki-moon, his outgoing successor (pictured above at the UN's headquarters in New York), is viewed as the dullest—and among the worst.

In Mr Ban's defence, he is decent and dogged. He can claim some credit for new development goals set last year and for overseeing a climate-change agreement in Paris in December. But he is painfully ineloquent, addicted to protocol and lacking in spontaneity and depth. Even after nine years in the job he is apt to stumble, most recently by calling Morocco's presence in Western Sahara "an occupation". Though most unbiased observers would agree, the diplomatic lapse gave the Moroccans an excuse to kick out UN staff trying to keep the peace in the area.

Overall Mr Ban personifies the defect to which the UN is prone: plumping for the lowest common denominator. He got the job because none of the permanent members of the Security Council—America, Britain, China, France and Russia—found him too objectionable. China wanted an

Asian; America regarded him as broadly in its camp; Russia found him acceptably nondescript. It is an error the UN looks set to repeat when he steps down by the end of this year.

UN-watchers say there is almost a consensus that Mr Ban's successor should be an eastern European woman—because no one satisfying either criterion has ever been chosen. Bulgaria has nominated Irina Bokova, the head of UNESCO, the UN's cultural arm. But early in her career she was a loyal Muscovite Communist, so America may block her. If Bulgaria then names Kristalina Georgieva, the European Union's budget commissioner, who may also fancy a shot, the Russians may block her because of the sanctions imposed by the EU on Russia over its actions in Ukraine.

At some point, presumably, a sufficiently inoffensive woman from the favoured region could be found. However, nine candidates (seven from eastern Europe, of whom three are women) have broken with precedent by declaring their candidacy rather than lobbying behind the scenes. In recent weeks they have all set out their stalls in public hearings before the UN General Assembly in New York.

Only two, both from outside eastern Europe, really impressed: António Guterres, a former Portuguese prime minister who has run the UN's commission for refugees deftly; and Helen Clark, a former prime minister of New Zealand who leads

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the UN's development programme. The Americans are said to dislike Ms Clark for trying to curb their nuclear tests in the Pacific. The Russians may well shun them both. A few late runners may emerge. Kevin Rudd, a former Australian prime minister who speaks Chinese, wants to have a go, but is thinly supported. Susana Malcorra, a long-serving UN official who is Argentina's foreign minister, may yet jump in. So conceivably could Michelle Bachelet, Chile's president, who previously headed the UN's agency for promoting women. Angela Merkel is speculated about wistfully, but most think that she would rather stay as Germany's chancellor, however onerous the job has become.

Many ordinary members want the Big Five to give them two finalists to choose between, rather than a single name to be rubber-stamped. But that would require an elastic interpretation of the UN's charter. At least the public hearings, which may resume if more candidates come forward, have probably knocked out the palpably implausible of the nine, ie, most of them.

The margins matter

No secretary-general could have ended, let alone prevented, all the many conflicts during Mr Ban's tenure, such as the recent ones in Burundi and eastern Congo (see next article). The UN can only be as effective as the warring parties or the big powers permit. But its boss matters because, for all its faults, the UN is the last resort when chaos breaks out. Though it has often failed to stop conflicts erupting, its secretary-general is often the only person who can call combatants to the negotiating table, and it is the sole entity with the capacity to pick up the pieces afterwards. It can make a difference only at the margin. But in some of the world's most benighted places, that may be the margin between life and death. ►►

The secretary-general is also the UN's "chief administrative officer". In this respect, too, under Mr Ban it has floundered. Anthony Banbury, a long-serving American UN official, penned a tale of woe in the *New York Times* soon after he had retired in disgust in March. It was failing, he wrote, "thanks to colossal mismanagement". Budgets for peacekeeping and other missions, he complained, were sloppily drawn up and poorly supervised. The most obvious defect, he wrote, is a "sclerotic personnel system", whereby "it takes on average 213 days to recruit someone".

Hiring is often political rather than on merit. Informal regional quotas often entrench the incompetent and even the corrupt. In the Iraqi "oil for food" scandal, before Mr Ban's era, several senior officials were either implicated in or failed to stop rampant graft. More recently peacekeepers in the Central African Republic sexually abused civilians they were supposed to protect. Countries such as the Democratic Republic of Congo, whose armies are notoriously prone to atrocities, were asked to contribute troops—for reasons of political expediency. A Swedish official in the UN's human rights commission, Anders Kompass, was suspended (though later exonerated) for exposing sexual abuse by French soldiers after senior people refused to act.

The UN's mode of governance is equally open to criticism. Countries that have grown in population, or economic or military heft, since it was founded in 1945, demand more of a voice—and not only when it comes to choosing a secretary-general. Many want to increase the number of permanent Security Council members. Brazil, Germany, India and Japan have hinted that they might, in return for admission, even at first forgo the right of veto that the Big Five hold. But each potential candidate has a rival. Pakistan cannot abide the notion of India being a permanent member. China is against Japan. Argentina and Mexico would block Brazil. Nigeria and South Africa would each howl if the other won a permanent seat for Africa. And why no permanent Arab member?

Despite the UN's glaring faults, deplored ever more vociferously by its critics, most reforms are likely to be blocked. The Big Five are still prone to veto any dilution of their power. Poor countries do not want the administration streamlined or the budget squeezed: they do not pay for the UN and many see it as a gravy train which gives their people cushy jobs. As for a suggestion to strengthen the secretary-general's independence by giving him or her only a single seven-year term rather than five-year stints with no term limits, as now, neither the Americans nor the Russians actually want someone strong or independent. The world needs a well-run UN, led by someone clever and tough, yet idealistic. Sadly, it probably will not get it. ■



UN peacekeeping in Congo

Never-ending mission

BENI

A long and costly operation can do little to bring peace—but cannot end either

AT A UN outpost about 20 miles north of Beni, a scrubby city in the north-east of the Democratic Republic of Congo, South African soldiers live in a veritable fort. Surrounded by barbed wire and equipped with armoured cars, they are a picture of military efficiency. A suave French general, Jean Baillaud, talks to the troops and to Congolese officers about the state of defences and patrols. A South African captain goes through the incidents of the past few months.

This corner of Congo has seen brutal violence in the past decade. For the past two years armed men have been coming out of the forest to hack up villagers with machetes, hoes and knives. The latest incident, on May 3rd, a few days before General Baillaud visited, left 17 people dead, including three pregnant women.

The UN's blue-helmeted troops are supposed to be working with the Congolese army to stop the bloodshed. MONUSCO, the French acronym by which the mission is known, is the longest and most expensive peacekeeping operation in the organisation's history. Almost 19,000 soldiers and 800 civilians have a mandate to protect the population, neutralise armed groups and stabilise the state. The aim is to help Congo recover from a war that killed anywhere from 500,000 to 5m people.

The mission has succeeded, in that Congo is no longer a gaping hole in Africa

for its neighbours to fight over. But as the violence in Beni shows, it has not brought peace either. Congo is a study in the UN's failures, and the way the organisation is hamstrung by politics.

The base in Beni houses soldiers from the Force Intervention Brigade (FIB), who make up about 3,000 of the 19,000 peacekeepers in Congo. They are active combat troops whose role is to attack the 30-60 armed groups (again, nobody is sure) that plague the east of the country. The FIB was created in 2013, after events that humiliated the UN and the Congolese army. In April 2012 a group of defectors, most of them Tutsi, formed an armed group, M23. This seized Goma, a city of 1m on the Rwandan border that is home to most of the UN's operations in Congo. Without firing a shot, Congolese soldiers fled to nearby towns, where they raped and pillaged. UN soldiers stood by, and when, days afterwards, M23 agreed to leave, the UN's headquarters were stoned and many of its vehicles torched.

Congo's president, Joseph Kabila, who took power in 2001 after his father was murdered, called for regional support to defeat the group. The prospect of armed men from across the continent flooding back into Congo led the UN to say they could come—but under its own command. Most of the peacekeepers in Congo are from South Asia, but the FIB's troops are ►►

In private, some UN officials say that all

Yet whether UN troops would be willing, if things turn nastier, to put themselves

Until Congo gets a government able and willing to protect its people, rather than prey on them, the UN will be needed. Yet its presence seems sure to prop up a government that is one of the main causes of its people's misery. And so the mission goes on, endlessly. ■

Sources: United Nations; *The Economist*



Oil and climate change

Greens in pinstriped suits

Climate-conscious shareholders are putting Big Oil on the spot

OIL firms find it hard to determine who their environmentalist adversaries are these days. They used to be easy to spot, with beards and dungarees. Now they spout forth corrupted Shakespeare to disrupt concert performances, or wear nuns' habits at annual general meetings (AGMs). Increasingly others sport pinstripes, representing trillions of dollars of pension and other money.

As four of the five largest private oil companies prepare to meet shareholders next week, it is the green brigade in ties and suits that most worries them. At AGMs on May 25th CalPERS, the California state pension fund, with \$294 billion of assets under management, plans to pressure ExxonMobil and Chevron, America's two biggest oil companies. It wants the energy firms to outline risks to their business plans thanks to more-stringent-than-expected climate-change policies agreed in Paris in December. At ExxonMobil they will be joined by Norway's Norges Bank Investment Management, the world's largest sovereign-wealth fund, the New York City Pension Fund, global asset managers such as HSBC and BMO, which have about \$650 billion of funds, and an ecumenical array of endowment-rich church groups.

Even Pope Francis will play a cameo role. The Sisters of St Dominic of Caldwell, New Jersey will invoke his encyclical about climate change in their proposal to commit ExxonMobil to support the Paris

goal of limiting global warming to less than 2°C above pre-industrial levels.

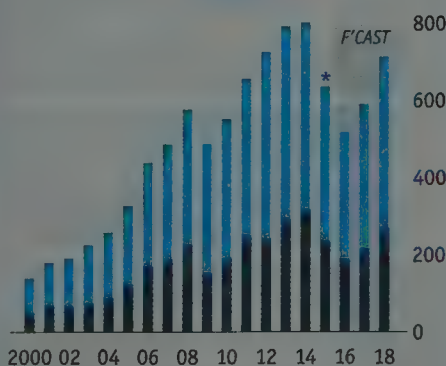
ExxonMobil, the world's largest private oil company, gives these resolutions short shrift. It argues that more energy is necessary to alleviate global poverty, and that technology—coupled with a carbon tax—will mitigate the environmental risks. It may hope that a recent rebound in oil prices to around \$50 a barrel will pacify shareholders. But their frustrations have been fanned by a decade of wasteful spending in the oil and gas industry (see chart). Some believe that more restrained capital allocation would boost returns, as well as helping the planet.

Most, if not all, of the investors' resolu-

Back to black

Investment in oil and gas production, \$bn

■ North America ■ International



Sources: AllianceBernstein; Thomson Reuters *Estimate

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tions will fail, says Heidi Welsh of the Sustainable Investments Institute, an American research firm. Such is the relatively docile nature of owner activism in America. But she says pressure from investors, ranging from those with concerns about the long-term economic impact of climate change to those with more moral preoccupations, is "coming to a head".

This month, an unexpectedly high 49% of shareholders backed a resolution urging Occidental Petroleum, another American oil firm, to stress-test a two-degree scenario. Some 42% voted for climate-related resolutions at Anadarko, a rival, and AES, a utility. Robert McCormick of Glass Lewis, a proxy advisory firm, says such a large vote suggests that usually placid asset managers, such as mutual funds, may have joined the green revolt alongside pension funds—more established rebels. He notes that the resolutions, even if passed, would be non-binding. But if they are ignored, shareholders can express their frustration in subsequent years by refusing to support a company's board nominees, he says.

The pressure on the American supermajors follows the "Aiming for A" campaign by institutional investors in Britain that last year forced Royal Dutch Shell and BP, the biggest European oil firms, to agree to reveal how stringent climate-change policies would affect their investment portfolios. Change across the Atlantic has proved harder to effect. Anne Simpson of CalPERS says shareholders have weaker rights in America, which has a more litigious corporate culture and where it is harder to challenge boards than in Britain. She talks of a "shut up or sell up" mentality.

Hence CalPERS is seeking "proxy access" at ExxonMobil that would give large shareholders the right to nominate board members. This is a growing trend in corporate America (a majority supported ▶▶

proxy access at Chevron last year), and Ms Simpson says it is aimed at installing a "climate-competent" board at ExxonMobil. The firm continues to reject it, even though last year the proposal gathered 49.4% of shareholder support. "If we can't hold boards accountable we may as well sit and whistle," she says, adding: "If we don't win this year, we will be back next year."

Yet even when firms agree to such resolutions, there is no guarantee their level of disclosure will satisfy investors. On May 11th Shell issued two reports on its assessment of climate-change risks in response to last year's vote. Full of pretty pictures and snazzy charts, they revealed little about how climate policies would alter future plans for developing oil- and gasfields.

James Leaton of the Carbon Tracker Initiative, an investment-focused NGO, says that in one report Shell tried to downplay the role of private oil companies in generating greenhouse gases, seeking to shift the blame instead to national state-controlled firms with larger reserves. "We don't need 50 pages of glossy documents," he says. "Give us two pages and tell us what high-cost projects you would cancel."

On the same day as the reports were published, Shell informed its employees that it was creating a "New Energies" business to invest in green technologies. But it and BP insist that hydrocarbons will still account for at least 75% of the world's energy for decades to come. Their response to global warming is to promote natural gas over coal and, eventually, oil; renewable energy remains a tiny share of their investment budgets. "Rumours of the death of oil are a little premature," says Peter Mather, head of BP's British business.

The only supermajor that wins high marks from shareholders for what they say is a more committed response to climate change is Total SA, a French company, which like Shell hosts its AGM on May 24th. It plans to set out its ambition to develop an energy mix by 2035 consistent with Paris-style global-warming limits, including a pledge to invest \$500m a year in renewables, and a "symbolic objective" to raise their share to 20% of its portfolio, from 3%. In an effort to complement its acquisition of SunPower, an American solar-energy company, in 2011, it launched an offer this month to acquire Saft, a French battery-maker, which will bolster its expertise in electricity storage.

But Total is likely to remain an oil and gas company above all else. Alongside its renewables aspirations, it claims that one of its most exciting ventures is producing natural gas in the pristine Russian Arctic. It does not see this as a contradiction. In fact, it argues that the focus on natural gas actually reflects its commitment to a two-degree global-warming scenario. From under their habits, French nuns may murmur growing disapproval in response. ■

Telecoms

Seeking another path

PARIS

With in-country mergers blocked, mobile-phone firms in Europe must now find other ways to grow

THREE was a magic number. At least, that was what mobile-phone operators and regulators in Europe believed a few years ago. Letting just a trio of rival companies compete inside each national market would supposedly produce decent outcomes. Customers would see enough competition to deliver low prices and innovative service; firms, despite mature markets with already high penetration rates, would get profits plump enough to allow them to invest in infrastructure, such as for rolling out 4G and 5G services.

Allowing so few operators was intended to bring other boons. One argument of proponents was that if companies could bulk up in-country they would try cross-border mergers next, creating European rivals to American giants such as AT&T and Verizon. Another was that having just three firms would actually limit the dominance of the biggest fish—usually the former monopoly, such as Deutsche Telekom or British Telecom—because the two smaller players would challenge the biggest, not scrap with other minnows. Another claim, just as hard to prove, was that regulators, by waving through mergers, would encourage dynamic markets. Mergers offered an exit for those who invest in, or launch, smaller telecoms firms. Blocking mergers, in contrast, would deter them.

For a time European regulators accepted the received wisdom. So mergers took place in Austria in 2013, then in Ireland in 2014, reducing those markets to three operators from four. Firms in bigger countries prepared to move. Orange, France's leading operator, held talks from January to buy Bouygues, the third-largest, for an ex-

pected €10 billion (\$11.3 billion). In Britain CK Hutchison, which operates the brand Three, agreed last year to pay £10.25 billion (\$15 billion) for O2, the second-ranked operator, owned by Spain's Telefónica. And in Italy another merger involving Hutchison was proposed. In each case, the number of operators would have fallen to three.

None of these big mergers is now likely. French officials quietly scotched the Orange-Bouygues deal in April, before it troubled Europe's regulators: they apparently fretted that Martin Bouygues, a billionaire industrialist, would get too much clout in the newly merged firm. Orange is partly state-owned and is seen as a national champion. Last week the EU's competition commissioner, Margrethe Vestager, scrapped the British merger, anxious that a lack of competition would hurt consumers. Most in the industry expect she will block the proposed Italian merger between Hutchison and VimpelCom too. In March she launched an "in depth" study into the effect it would have on competition.

Ms Vestager is not alone in doubting the magic of three operators. Britain's regulator also opposed the Three/O2 merger. And research last year by the OECD suggests users prosper with four operators. After Austria lost its fourth, costs for consumers promptly rose. When France gained a disruptive and innovative fourth player, Free, in 2012, prices fell quicker than before, even as spending on infrastructure rose. In both countries four operators offered customers better international roaming deals than three did. As for spending on networks, other analysis from OFCOM, Britain's communications regulator, has found "no linkage between consolidation or higher concentration in mobile markets and an increase in investment".

Some in the industry are dismayed. "Both EU and UK regulators seem only concerned with consumer pricing and don't think of the bigger picture," complains Bengt Nordstrom, who advises firms on mergers. He warns that blocking unions of smaller firms will mostly help market leaders, which he says typically grab over 50% of industry revenues already. And markets dominated by former monopolies, he worries, will foster too little competition in building networks and laying fibre cables to prepare Europe for future digital growth.

If in-country mergers are off the table, firms need other ways to prosper. One option might be for more to share networks, ►►



thereby cutting costs. Another is for more mergers of fixed-line and mobile business. In Britain BT, a fixed-line operator, has bought EE, a mobile firm. In the Netherlands Liberty Global combines fixed and mobile. Vodafone, the most successful example of a pan-European mobile firm, present in 14 countries, is in fixed-lines too. Vodafone's boss, Vittorio Colao, said on May 17th his firm had just enjoyed the "first quarter of positive revenue growth in Europe since December 2010", after spending £19 billion on infrastructure.

Yet fixed-mobile mergers are no cure-all, argues James Barford of Enders Analysis, a consultancy. Whereas in-country mergers of mobile companies offer lots of efficiencies, combining fixed and mobile delivers more modest benefits. Worse, these tend to accrue to more dominant

firms, notably old fixed-line incumbents.

What really counts, says Mr Barford, is how firms are placed to transmit huge quantities of data to customers, mostly for watching video clips and TV. He estimates that telecoms firms already make about half of their revenues from data, and mobile-data volumes are rising by 60% to 70% a year. The mobile business is increasingly about transmitting bytes, which depends on how much of the spectrum a firm controls and how efficiently it is used. Small firms with rights to the spectrum could thus look for new sorts of partners. Outsiders—perhaps private-equity firms with deep pockets, says Mr Nordstrom—may want to team up with them to roll out television, internet, mobile, fixed and other flashy services. So there is life beyond in-country mergers. ■

maceuticals and chemicals concern that is one of Germany's biggest firms by market value. Monsanto has gone from hunter to hunted, having tried and failed to buy Syngenta a year ago. Overall, the deal-making could exceed \$200 billion: it is the stuff of investment bankers' dreams.

Three trends explain the surge in activity. First, a slump in sales: the agricultural-product industry's top line, growing at 2% in 2014, fell by 10% in 2015. With crop prices low, farmers are spending less. Second, bosses think that selling bundles of products to farmers will be more profitable in the long run. Monsanto talks of having a footprint of millions of acres around the world upon which seeds, bug-killers and nutrients can be used, helped by better mapping and data-crunching. The third trend is specific to Syngenta: China's government wants to modernise its farms and to own the intellectual property involved, for example seed patents.

Merger waves have struck many other industries—think of oil in the 1990s or steel in the early 2000s. Often the grand themes used to justify deals make some sense, but the numbers don't add up. The present binge already looks alarming. ChemChina will borrow a cool \$35 billion to buy Syngenta which, based on its 2015 profits, will make its new Chinese owner a hopeless 3% return on capital. Were Bayer to try to buy Monsanto with cash, the combined firm would have net debt of a queasy four times its gross operating profits, and the purchase would generate a roughly 6% return on capital, using 2015 figures. The lavish cost savings promised by Dow and DuPont have failed to excite, with both firms' shares trading roughly in line with the stockmarket since the deal was launched.

One explanation is that investors worry that antitrust regulators will block the all-American combination, or impose tough conditions on it. Competition concerns could yet scupper the entire wave of dealmaking. The ChemChina deal, meanwhile, could attract attention from spooks. Europe has been relaxed about Chinese takeovers. Last year ChemChina bought Pirelli, a fading Italian industrial champion. But Syngenta makes 27% of its sales in North America, so its purchase will be vetted in America by a national-security committee known as CFIUS. This has a track record of protectionist behaviour towards Chinese firms. Syngenta's shares trade at a hefty discount to the Chinese offer, because of fears that the deal may be blocked.

All the proposed deals could be squashed or end in acrimony, allowing other combinations to be attempted. Firms on the sidelines, most notably Germany's BASF, could be tempted to pile in. So for bosses there is still everything to play for. Investors may not like it much, but in the obscure world of chemicals times like this happen only once in a generation. ■



Biotechnology

Seedy business

NEW YORK

It's eat or be eaten for the firms that make seeds and chemicals for farmers

WHEN DuPont and Dow Chemical agreed to merge in December, the \$130 billion deal seemed to be a prime example of American managers' ruthless pursuit of shareholder value and dedication to building monopoly positions. The two chemicals firms, with a combined 300-odd years under their belts, had both been beaten up by activist investors in the 20 months or so leading up to the deal.

Partly in response, the companies said they would combine and then split into three new firms, focused on agriculture, speciality products (used, for example, in electronics), and materials (used in plastics). Huge cost cuts are planned when the

deal closes, supposedly later this year. The unspoken message to investors is that the three new firms, with higher market shares, will also be able to raise prices.

What has become clearer since then is that Dow-DuPont is also part of a global trend: a wave of consolidation in the agricultural seeds and chemicals industry. In February ChemChina, a state-owned Chinese firm that has been on a buying spree, agreed to pay \$43 billion for Syngenta, a big Swiss firm that specialises in selling chemicals to farmers. This week Monsanto, an American seeds firm valued at \$42 billion, confirmed that it had received an unsolicited takeover approach from Bayer, a phar-

Buffett, Apple and Didi Chuxing

\$1 billion stakes on the menu

NEW YORK

The meaning of two odd, and connected, investments

USUALLY it is a good sign when Berkshire Hathaway, the investment vehicle of Warren Buffett, takes a stake in a firm. Berkshire's purchase of \$1 billion of Apple shares, disclosed on May 16th, may be an exception, however. Mr Buffett typically likes firms that are mature. This is a label that Apple is desperate to avoid—especially since it reported a 13% fall in its sales in the quarter that ended in March, compared with the previous year.

Mr Buffett is also famously, even proudly, ignorant about technology. Berkshire's annual meeting was not webcast until this year and its other bet on the industry, a stake in struggling IBM, has cost it dearly. The new investment by Mr Buffett, who is 85, comes weeks after the veteran corporate raider Carl Icahn, who is 80, sold a \$5 billion stake in Apple. The sight of two octogenarians grappling over the firm's fate does not enhance its aura as a temple of innovation.

The investment does highlight how much Mr Buffett's firm has changed. A billion dollars is now a drop in the ocean: equivalent to just 0.3% of Berkshire's market capitalisation. As Berkshire has got larger, it has shifted away from Mr Buffett's long-standing strategy of buying and holding cheap shares towards buying and holding entire companies, such as BNSF, a rail group, and Kraft Heinz (which Berkshire co-owns with 3G, a buy-out fund). Investments in shares now comprise only a fifth of Berkshire's assets; Apple will be among its smallest positions.

Perhaps Mr Buffett is just being opportunistic, as he has been before: he invested in Goldman Sachs, a large bank, in the depths of the financial crisis. Or perhaps he will steadily build a much bigger stake in Apple, which is now one of the cheapest big stocks in America, trading on a miserly 11 times earnings, compared with 29 for Alphabet and 72 for Facebook.

If Mr Buffett's attraction to Apple sends an ambiguous signal about its growth prospects, so too does Apple's decision to take a \$1 billion stake in Didi Chuxing, mainland China's answer to the car-hailing app Uber, which was announced on May 12th. Tim Cook, Apple's boss, said the deal would help his firm learn more both about China and about new services, such as entertainment systems for cars. But the transaction can also be interpreted in two other ways.

The first is that it allows Apple to curry

Agriculture in Cyprus

Cheese in our time

LIMASSOL

What a hullabaloo over halloumi—or hellim—says about reunification

OVER the past four decades, officials negotiating an end to Europe's oldest frozen conflict, the dispute between the internationally recognised Republic of Cyprus and the self-declared Turkish Republic of Northern Cyprus (TRNC), have had plenty to chew on. A deal now appears possible; leaders on both sides say it could come by the end of the year. Reunification hinges on a dizzying number of issues, including property, governance and the withdrawal of Turkish troops from the northern part of the island. Yet there is one area where Greek and Turkish Cypriots already see eye to eye: cheesemaking.

Love of the salty, rubbery cheese known as halloumi in the south and hellim in the north enriches the island. Last year, the Greek south exported

€103m (\$116m) worth of the stuff, much of it to Britain. In the TRNC, hellim made up a full quarter of all exports.

Last July the two sides filed a joint application to have the cheese declared a Protected Designation of Origin (PDO) product by the European Union. This status would place halloumi and hellim on a footing with such lauded delicacies as Parma ham, champagne and Roquefort cheese, banning dairy producers outside Cyprus from using either name. A decision is expected later this year.

For Turkish Cypriot cheesemakers, however, PDO status will count for little without a peace settlement. It might allow hellim to be sold in the southern part of the island. But as Cyprus has been a member of the EU since 2004, the bloc's laws apply only in the Greek part of the island. As a result hellim, like other northern products, remains frozen out of Europe's single market.

Much of it ends up in Turkey, the only country to recognise the TRNC. Exports to cheese lovers in other parts of the world have to be sent through Turkish ports, where handling, storage and insurance costs all eat away at profits. "A Greek Cypriot company pays less than \$2,500 for a shipping container to Saudi Arabia," explains Candan Avunduk of Meric Sut, a Turkish Cypriot dairy producer. "We pay \$6,000."

Even in the case of a peace deal, other delays may be in store thanks to strict hygiene regulations. Meeting European health standards will probably take the local dairy sector at least three years, estimates Fikri Toros, head of the Turkish Cypriot chamber of commerce. For cheese enthusiasts in Europe, it will be worth the wait.



Curds and wahey!

favour with China's government. The company generates \$59 billion of sales in the country, or a quarter of its total, so China is almost as important to it as America is. Yet its status with China's rulers is precarious: last month Apple's film and book online stores were banned there. Didi, meanwhile, is losing billions of dollars a year in a price war with Uber. China's government is no doubt keen to see its home-grown offering survive. So by giving Didi a dollop of cash and its support, Apple will win brownie points in Beijing. It certainly won't be the last American tech firm to seek them.

The second interpretation of Apple's tactic is simply that, as the firm stops grow-

ing, it will become increasingly tempted by speculative bets on things that are only tangentially related to its core area of expertise. If you add up Apple's spare cash and the money it is expected to make over the next two years, you get to about \$300 billion. Mr Cook has so far promised to return about \$100 billion of that in dividends and buy-backs, leaving him a vast pile of money to play with. Before he embarks upon any spending spree, Apple's boss should remember that only one man in history has invested billions of dollars of other people's money successfully over the long run: Warren Buffett. Perhaps Mr Cook should turn to his new shareholder for advice. ■



Political consultants

Risk premiums

SÃO PAULO

Policy wonks win big when the going gets tough

MERELY keeping up with fevered events in Brazil has proved a challenge of late. The president suspended from office pending impeachment over dodgy government accounting; a caretaker administration left to tackle the worst recession since the 1930s; all amid an operatic bribery scandal with twists and turns that make Brazil's *telenovelas* (soap operas) look logical. Staying ahead, as investors and businesses often need to, can seem a forlorn hope.

Luckily, help is at hand. From niche boutiques to big strategy consultants, a growing number of outfits offer to make sense of it all. Swathes of Brazil's economy may lie idle, but political-risk advisers report being busier than ever.

In fact, the risk business is booming everywhere, not just Brazil. With the Middle East in flames, Russia in adventurist mood and China paving over disputed reefs, geopolitics is again a concern of bosses everywhere. The threat of Brexit and the migrant crisis make even dull European countries appear too exciting, if anything. In America, meanwhile, the prospect of a President Trump invites probing.

Helpfully for political-risk analysts, the latest surge in global uncertainty has coincided with the maturing of their industry. In its current form it dates to the mid-1990s. Back then pitches to clients would elicit bemusement, recalls Ian Bremmer, founder of Eurasia Group, a veteran purveyor of real-time political science with headquarters in New York. Stratfor, which has been flogging geopolitical foresight for two decades from its base in Austin, Texas, recently notched up a record 550,000 subscribers. "We no longer have to justify our existence," says Mr Bremmer gleefully.

Demand for such analysis got a fillip

with the financial crisis, as multinationals pared back in-house strategy departments charged with providing it (among other things). These have shrunk by half, reckons Joel Whitaker of Frontier, an adviser based in Washington DC. He puts this down to boards' growing short-termism and pressure to cut costs. Reliance on outside counsel has risen as a result.

Financial firms, which tend to read political scenarios the same way (broadly: sell statist, buy pro-business), were early adopters of generic subscription forecasts first offered by Stratfor and Eurasia. They still use these, but ever more bosses want

assessments of company-specific risks too. That is a boon to firms such as Brazil's Prospectiva, which has been demystifying the country's confused trade and industrial policies for 14 years. It has grown by 20% to 30% a year since 2012, says Ricardo Mendes, a partner. Bespoke advice now makes up a fifth of Frontier's revenues, up from nothing 18 months ago. At Stratfor it has outpaced subscriptions in the past five years and accounts for a third of sales.

Larger consultancies are dabbling too. Britain's Control Risks has 100 political analysts in dozens of offices around the world, up from 30 in London ten years ago; they supplement its main business advising companies on how to keep workers safe and fight fraud. Giant management-consulting firms, such as McKinsey, are bundling political-risk analysis with other prescriptions for corporate betterment. Like the risks themselves, then, risk advisers are becoming more diverse. As important, they no longer simply assist Western firms thinking of investing in exotic places. Eurasia opened an outpost in São Paulo, its first outside the rich world, in late 2014—in principle to cater to Brazilian companies spying opportunities in other markets. In practice it helps perplexed Brazilian bosses make sense of the political crisis at home.

"Political risk" is not something you say out loud in China, yet Chinese companies increasingly feel the need to factor it into their investment decisions—including in developed nations facing new troubles. So do other multinationals. To firms such as Bimbo, a large Mexican baker which Frontier is advising as it looks to expand north, "the US is an emerging market", notes Mr Whitaker. And it is just as uncertain. ■

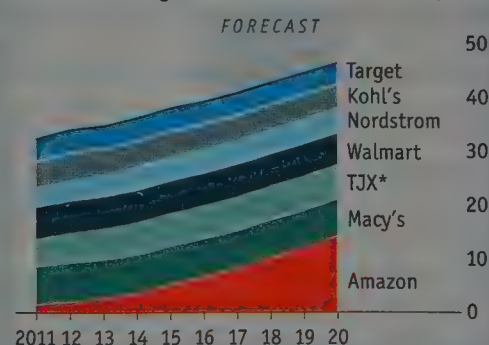
Amazon's clothing coup

Times are tough for America's department stores. This month Macy's, Kohl's, JC Penney and Nordstrom all reported slumping sales. Foreign tourists are spending less; consumers are buying other types of goods. Even if they drift back, one threat looks likely to stay: Amazon. In 2011 the online retailer accounted for 1.4% of American sales of clothing, handbags and shoes. Next year Cowen, a financial services firm, expects it to overtake Macy's as America's top seller of apparel. Shoppers like the Amazon's huge selection (about 19m items), easy shipping and partnerships with brands such as Adidas. Not all traditional retailers are floundering; on May 17th TJX reported a 7% bump in comparable sales. The firm's stores satisfy those keen to hunt for discounted designer clothes—a quest hard to mimic online. But Cowen expects even TJX's clothing sales to be less than half of Amazon's by 2020.

Number of clothes buyers
% change on a year earlier



US retail clothing and accessories market share, %



Source: Cowen and Company *Includes T. J. Maxx and Marshalls

Schumpeter | The emporium strikes back

Platforms are the future—but not for everyone



“INTERESTING thesis, but don’t use the word ‘platform’ in the title. No one knows what it means.” That was the reaction of a professor at MIT in 2000 upon reading the dissertation of Annabelle Gawer, now co-director of the Centre for Digital Economy at the University of Surrey. She ignored the advice and kept the title.

If anyone were to counsel Ms Gawer against using the word today, it would be for the opposite reason: overuse. Academic papers on the concept are now legion. Books are multiplying, too: after “Platform Revolution” in March, this month will see the release of “Matchmakers” (with the p-word in the subtitle). Rare is the startup that does not want to be a platform. A rapidly growing number of incumbent firms, too, are striving to build platforms. Yet the professor’s problem remains pertinent: confusion still reigns over what exactly platforms are. And this, combined with the hype, hides the fact that they are not for everyone.

Broadly defined, platforms are a type of marketplace where people and businesses trade under a set of rules set by the owner or operator. Among the first were the emporiums in ancient Greece, designated places near docks where traders could exchange merchandise. More recently, digitisation and the internet have given rise to a new type that is both marketplace and shared base. Operating systems are an example, such as Windows for personal computers and Android for smartphones; these programs provide basic services that applications developed by others need to run. Another version is e-commerce sites, including Amazon and eBay, which connect sellers and buyers (hence the title “Matchmakers”). Social networks, too, are platforms: they bring together consumers, advertisers and software developers.

These modern platforms have three things in common. They are “multi-sided”, meaning they have more than one group of customers. They exhibit strong “network effects”: a growing group of one sort of customer attracts more of the other, which again draws in more of the first and so on. And they are controlled by one company, which can dictate the terms of trade, such as what type of businesses are allowed on its digital property and what they have to pay for the privilege.

Such features have allowed American companies in particular to build global digital emporiums that have come to dominate the technology industry. In late 2015 the 44 platform firms based

in Silicon Valley alone boasted a combined market capitalisation of \$2.2 trillion, according to the Centre for Global Enterprise (CGE), a think-tank. Among them, Apple’s iPhone exemplifies best how to run a platform: anybody can write an app, but it has to pass strict tests and the firm keeps 30% of all sales.

As everything from toothbrushes to tractors grows more connected the phenomenon is spreading to other industries. The latest iterations gather mounds of data, analyse them and serve up the results, thus enabling all kinds of digital offerings, from predicting failures to giving advice. One example of such a data platform is Nest, a subsidiary of Alphabet, Google’s holding company. It sells devices, such as wireless thermostats and smoke detectors, which double as vehicles to collect information, allowing the company to offer tailored energy and security services.

This trend alarms non-tech firms. They fret that if the likes of Apple and Google come to control such data platforms, these new intermediaries will seize a big chunk of their profits. This fear has sparked a rush to build or buy such systems. Last year car-makers Audi, BMW and Daimler acquired Here, a digital-mapping firm. General Electric, an American conglomerate, is betting big on Predix, which helps customers improve how they run locomotives, jet engines and other gear. Apollo Hospitals in India is creating a marketplace for health-care services.

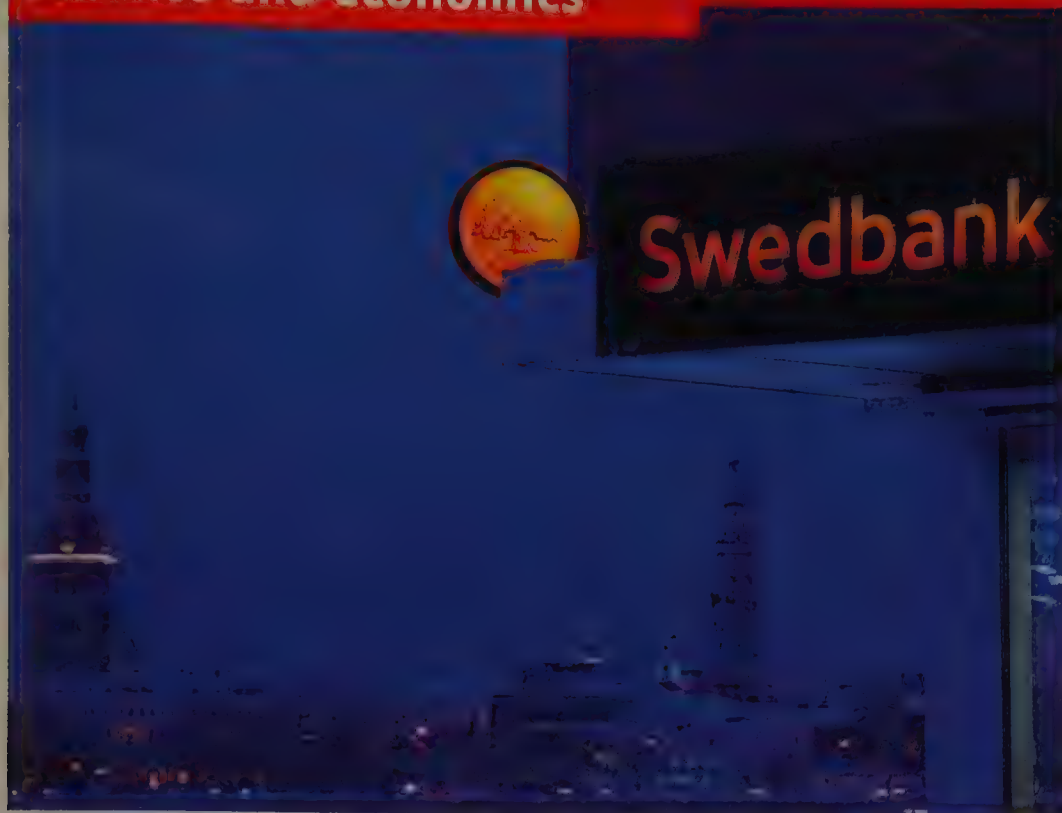
Many more established companies are sure to follow suit, as are thousands of startups. But before they tread this path, they should consider a few caveats. First, most products and services are not substantial enough to make a good platform. And even if they are, it is not always a good idea to turn them into one, says Ms Gawer, who is co-authoring a book to debunk myths about the concept. The late Steve Jobs, for instance, long resisted opening Apple’s app store to others for fear of losing control.

Second, network effects often fizzle. All sides of an online marketplace have to be nurtured in parallel to avoid imbalances, such as having far more sellers than buyers. During the dotcom bubble, most business-to-business marketplaces failed because their pursuit of growth led to such lopsidedness. Even firms that had a head start, such as MySpace and Nokia, a social network and a mobile-phone maker respectively, didn’t manage to turn themselves into fully fledged platforms. Most successful ones are the product of specific circumstances and even chance, reckons Peter Evans of CGE. Amazon, for example, took off in part because its customers did not have to pay sales tax if they were outside the firm’s home state, Washington.

Third, it is not always easy to make money from platforms. Misjudge how much to charge each group of customers, and the flywheel can come to a juddering halt. What is more, for a platform to make good money, switching to a rival has to be costly, argues Andrei Hagiu of Harvard Business School. This risk even hangs over Uber, the fast-expanding taxi-hailing service: using a competitor is easy for both passengers and drivers.

Apps of the world, unite!

Platforms with a leg in the physical world are likely to take more time to emerge than the purely digital sort. And firms have some alternatives: those with outstanding products and a strong brand can try to forgo others’ platforms, hoping that they succeed on their own. But ultimately most firms will have no choice but to do business on somebody else’s digital property, and to agitate for better terms if the owner gets too greedy. Call it the class struggle of platform capitalism. ■



Swedbank

Bank to basics

STOCKHOLM

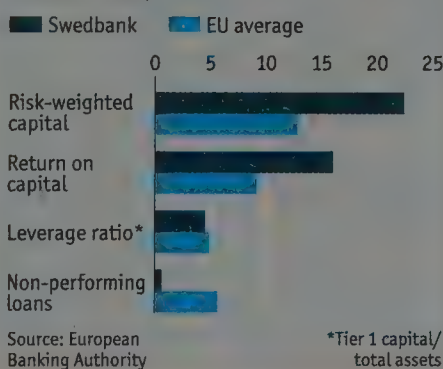
Swedbank's success is built on old-fashioned thrift and modern technology

TWO years ago Swedbank, Sweden's biggest retail bank, moved from its offices in the centre of Stockholm to a drab business park outside the city. Employees fretted about leaving their prime location, a few doors from the Riksbank, the central bank, and a stone's throw from Parliament. The move, which has saved \$25m-odd a year, was symbolic not only of the bank's thrift, but also of its desire to retreat from the exciting but risky end of banking. Instead, much like the Scandinavian furniture in its office, it is returning to something simpler and more straightforward. That strategy has made Swedbank not only one of the safest banks in Europe, as judged by the thickness of its cushion of capital, but also one of the most profitable.

European banks are struggling. Economic growth is low; regulators demand ever more capital, and negative interest rates, which most banks do not dare to pass on to depositors, squeeze margins. All this, bankers tell aggrieved shareholders, has inevitably pushed returns far below their pre-crisis levels. Yet Swedbank has defied the inevitable. It is nearly twice as profitable as the average European bank, despite holding twice as much capital on a risk-weighted basis (see chart). Last month it announced profits for the first quarter of SKr4.31 billion (\$510m), well above market expectations and virtually the same as last

Without breaking a Swed

November 2015, %



year (SKr4.32 billion), before Sweden and the euro zone adopted negative rates. This was doubly unexpected given the sudden departure of the bank's CEO in February, amid criticism of his policing of suspected conflicts of interest among the staff.

Underlying the bank's success is the idea that in the post-crisis world, running a retail bank is not that different from running a utility. The business strategy is simple: sell lots of dull, low-risk products while keeping operating costs as low as possible. Of its 8m customers, 7m are households. Mortgages make up 60% of its loan book. Although there is plenty that banks cannot control, Swedbank focuses relentlessly on what it can: cost and risk.

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"Hard and sweaty work" is the only way forward, says Goran Bronner, the bank's CFO. Swedbank has cut its staff by a third since 2009; slashed the number of branches in Sweden (it also operates in the Baltic states) from over 1,000 in 1997 to 275 today, and made all but eight of those completely cashless. Discipline on spending pervades the bank, from procurement (switching phone companies recently reduced its telecom bills by 58%) to staffing (it is moving part of the workforce to the Baltics, where wages are up to 70% lower). It is over halfway through a two-year plan to reduce group expenditure by SKr1.4 billion. The \$1.6m salary of the new CEO, Birgitte Bonnesen, is modest for the industry.

As a result of this frugality, Swedbank has a cost-to-income ratio of 43%, meaning that 57% of the money it takes in can be distributed to shareholders or reinvested. This is over 16 percentage points more than the average for the EU as a whole. The Baltic branches are even more efficient, thanks in part to even greater use of digital banking than in Sweden.

The bank's efforts to move customers from branches and phones to websites and apps are crucial to its success. In the future people may well only visit a branch once every five years, suggests Ms Bonnesen, who believes "extreme efficiency", abetted by technology, is the nub of retail banking. Across the road from Swedbank's headquarters, in a converted warehouse, 200 developers and business managers flit from breakout areas to meeting pods, planning this lean but customer-pleasing fu- ▶▶

Correction: In our special report on finance in China on May 7th ("Breaking bad"), we stated that Agricultural Bank of China had lent money to Hanquan, a steel company. We were wrong: Hanquan borrowed from other banks, not AgBank. Sorry.

ture. One of their most popular creations is the “shake for balance” function on Swedbank’s app, which allows users to shake their phones to find out how much money they have in their account. It is used 30m times a month.

It helps that Swedbank’s biggest market is Sweden. Its economy has grown faster than most of Europe. Swedes have also been easier to wean off expensive cash and human contact than other Europeans, thanks to their digital savvy. And the Swedish banking bust of the 1990s instilled a wariness of lax lending in local bankers long before the global financial crisis.

Nonetheless, Swedbank still lent too freely to borrowers in the Baltics, Russia and Ukraine in the early 2000s. Some 20% of loans in those countries had soured by 2009 (compared to 3% for the bank as a whole). What makes the bank remarkable, says Alexander Ekblom of Standard & Poor’s, a rating agency, is how it responded. It promptly sold its Russian and Ukrainian business and wrote off bad loans in the Baltics. Only 0.4% of its current lending is in default.

This experience made Swedbank the conservative, slightly boring bank that it is today. It says it has no ambition to expand

to new markets or to trim its capital. It avoids risky assets, preferring those with solid collateral, such as property. Any new business must have a risk-adjusted return of at least 20% to be considered worthwhile. In Sweden it tries to steer clear of lending to industries exposed to private consumption, which tends to suffer in downturns. Much of its corporate lending goes to farming, forestry and housing co-operatives, which it considers safer.

Despite this obsession with risk management, the bank faces some risks that are hard to control. Because Swedes don’t keep much money in the bank, Swedish banks ▶▶

Buttonwood

Investors fear Brexit, but don’t think it’s likely

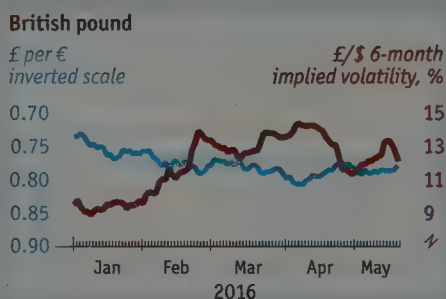
IN A month’s time, on June 23rd, Britain will vote on whether to leave the European Union. For many voters, polling day will be a blessed relief after a campaign that will have dominated the news for four months. Mind you, if they vote to leave, they will suffer many years of further debate about the exit negotiations.

Financial markets have been bemused observers of the campaign. Most investors, like most economists, think Britain would be worse off outside the EU. A recent survey of global fund managers by Bank of America Merrill Lynch (BofA) found that Brexit was the biggest market risk, ahead of a Chinese devaluation; however, 71% of those managers thought it unlikely that Britons would vote to leave. Despite the closeness of most opinion polls, gambling markets have consistently favoured a Remain vote; the odds on Leave are down to 25%.

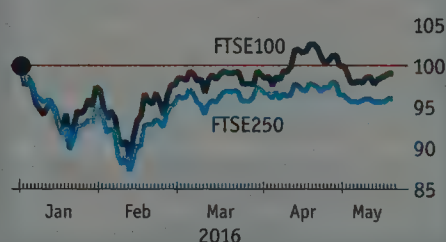
If Britain does vote to leave, the nature of the subsequent trade relationship with the EU will be all-important. Fitch, a credit-rating agency, says a quick deal guaranteeing free trade with the EU would be only mildly negative. But that would probably require Britain to accept free movement of labour and a contribution to the EU budget—the very things that Brexit campaigners want to stop. At the other end of the scale, a scenario that involved protracted negotiations and Scottish independence would put Britain’s credit rating under great pressure.

So it is a difficult trade for investors: an event which they think is unlikely, but which could have grim consequences. The pound would probably be the biggest casualty of a Brexit vote; indeed, it took a hit on the day the referendum was announced. Since then it has recovered against the dollar, which has dropped against most currencies as the Federal Re-

A tough trade



Stockmarkets, January 1st=100



Source: Thomson Reuters

serve has sounded more dovish on further rate increases. But the pound has still weakened against the euro during the campaign (see chart).

The problem for currency traders is that the risks go both ways: a vote to remain in the EU would probably push the pound up, making life hard for those who had gambled on Brexit. This uncertainty shows up in the options market, where traders can hedge against currency swings. The premium they must pay to insure against lurches by the pound (known in the jargon as implied volatility) has risen sharply.

Fund managers polled by BofA are already less enthusiastic about British equities than they have been for more than seven years. But the impact of Brexit on individual stocks will vary. More than 78% of the revenues of FTSE 100 companies come from outside Britain, according to

BlackRock, a fund-management group. Such companies will see the value of their foreign earnings rise if sterling declines. But companies in the FTSE 250 index (medium-sided groups) generate nearly 60% of their revenues at home. So the performance of the FTSE 250 has lagged the large-cap index so far this year.

On the surface it might seem that British government bonds, or gilts, should be suffering in the run-up to the poll. International investors who hold gilts would lose out if a Leave vote led to a fall in sterling; they might be expected to demand a higher yield to compensate for that risk. In fact, the yield on the ten-year bond is close to its level on the day the poll was announced. In part, that is because the British bond market is part of a global bond market, where yields have remained low. Also, a Brexit vote would have an adverse effect on confidence and economic activity, so it would probably be followed by an interest-rate cut from the Bank of England, or even an expansion of its bond-buying programme (quantitative easing). Both events would be good for gilts, driving yields down, not up.

Investors’ confidence that the Remain side will win means that the markets’ reaction in the event of a Leave vote is likely to be dramatic. Erik Nielsen, chief economist at UniCredit, an Italian bank, thinks the pound could fall 10-15% in trade-weighted terms. The news would probably drag down the euro against the dollar, too, since the long-term stability of the EU would be in doubt. Indeed, even Federal Reserve governors have said that the British poll might affect their policy decisions, because of the potential impact on confidence. Many fingers will be crossed on the night of June 23rd.

rely heavily on wholesale funding, making them vulnerable to investors' mood swings. And Swedbank's impressive risk-adjusted capital ratio is largely the result of the very favourable treatment that mortgages in rich countries still receive under the Basel banking rules compared to other types of lending. If global regulators' approach to mortgages were ever to change, Swedbank would look much less strong: its leverage ratio, an unweighted measure of capital, is pedestrian.

By the same token, if Swedes ever defaulted on their mortgages in large numbers, Swedbank would be in big trouble. Swedish house prices, and thus mortgage lending, are swelling at a tremendous pace, generating fears of a bubble. Swedish policymakers and bankers seem remarkably sanguine that, even if there were a correction, households would not default on their mortgages, although the broader economy would suffer as households cut back on other spending. But even if these grim scenarios were to materialise, Swedbank would be starting in a much stronger place than most European banks. ■

Pacific economies

The leeward side of fortune

DILLI

The economic deck is stacked against the tiny countries of the Pacific

THE phrase "Pacific island" conjures images of white-sand beaches, turquoise seas and cocktails served in halved coconuts. Alas, the reality is not quite so blissful. Most of the countries of the Pacific are poor and poorly run. Their tiny size and remoteness are obstacles enough to prosperity. Now, thanks to global warming, they must also contend with rising seas and increasingly frequent and severe storms.

The biggest regional economies belong to the predominantly Melanesian countries closest to Asia: Fiji, Papua New Guinea (PNG) and Timor-Leste (which considers itself both a Pacific and a South-East Asian country). Fiji's leading export has long been sugar; sugar cane covers three-quarters of its arable land. But output is falling, and its future is uncertain: for years Fijian sugar has benefited from preferential access to the European Union, but that is scheduled to end next year. Competing on the open market against bigger producers with lower production and transport costs, such as Brazil and India, will be difficult. Fortunately, Fiji has a robust and growing tourism industry and, like many Pacific countries, reliable remittances from overseas workers.

PNG, culturally one of the world's most



Life in Vanuatu is not all fruity cocktails

diverse states (its 7.5m people speak more than 800 languages), relies on exports of minerals and, since 2014, natural gas. The economy grew by 10% last year as gas production increased. But with commodity prices low, a large gold and copper mine recently closing and drought battering the country's farms, growth has decreased markedly: the Asian Development Bank predicts a rate of 4.3% this year.

Timor-Leste has tried to insure against such external risks: in 2005, a couple of years after it became fully independent, it passed a law requiring its petroleum and natural-gas revenues to be put into a sovereign-wealth fund. The government, subject to parliamentary approval, is supposed to transfer no more than an "estimated sustainable income" from the fund into its budget each year. But the government has made excess withdrawals to fund budgets every year since 2009, and top-up funds will soon become scarce.

If Timor-Leste can reach an agreement with Australia on how to divide Greater Sunrise, a gasfield in the Timor Sea between the two countries, then its gas will last another 15 years. If not, its known fields will be exhausted in four. Timor-Leste has a tiny private sector; recent growth has come from public spending made possible by money from the petroleum fund and from taxing oil and gas firms. It is among the most oil-dependent countries in the world: the industry accounts for around three-quarters of GDP.

The rest of the region consists of far-flung islands which rely on four main sources of income. One is tourism, though this is less developed than one might expect for an area composed of Elysian islands with pristine beaches and rainbow coral. Second is the sale of fishing rights in the vast stretches of ocean that fall within their territory. Remittances from workers abroad is a third. Finally, improved connectivity has created a modest outsourcing industry, strongest in Fiji, offering services

such as call centres and data processing.

The outsourcing business relies on new fibre-optic cables. Flying and shipping goods and people around the region has become cheaper, too. But these only restrain geography rather than vanquish it. Manufacturing will always be limited to a small degree of import-substitution: transport costs are just too high to follow the conventional East Asian path of industrialisation. And Pacific countries suffer from devastating cyclones, which are likely to grow stronger and more frequent in the years ahead. Eight countries in the region lose an average of 2% or more of GDP each year to storms. In time the low-lying atolls of Kiribati, Vanuatu and Tuvalu may disappear entirely beneath rising seas. ■

Quinoa

Against the grain

The fad for the Andean staple has not hurt the poor—yet

IS THE global fad for quinoa a bane or boon to the peasants of the Andes? For centuries they were more or less the only people to grow or eat the stuff. Dieticians in the rich world have known how nutritious it is for a long time: in 1993 a study by NASA, America's space agency, stated: "While no single food can supply all the essential life-sustaining nutrients, quinoa comes as close as any other in the plant or animal kingdom." But it took adulation from the likes of Oprah Winfrey (who in 2008 included it in her 21-day "cleanse" diet) to give the grain global appeal. Now, wherever yuppies can be found, it can be too, usually lurking near Puy lentils or goji berries in a salad. The UN even branded 2013 the International Year of Quinoa. ►►



Watch out or a vegan will snatch it

► As demand galloped ahead, supply could not keep pace. So between 2000 and its peak in 2014, the average price of quinoa exports from Peru and Bolivia more than tripled, to \$6-7 a kilogram. That panicked the *Guardian*, a British newspaper, among other hand-wringers: in 2013 it ran the headline "Can vegans stomach the unpalatable truth about quinoa?" It accused heedless Western hipsters of pricing poor Andeans out of their staple food. Given that 16% of Bolivians and 7.5% of Peruvians are undernourished, according to the UN, that is a serious charge.

Happily, the food fadsters are not guilty. Although average quinoa consumption in Peru fell as quinoa prices rose, it did so steadily, and much less abruptly, than the movement in the price. This suggests that the switch was as much to do with changing preferences as prices. Young Peruvians are keener to indulge in food fads of their own—for more Western food—than to gorge on their grandparents' staple.

Not so keen on quinoa

In any case, only a tiny portion of Peruvian household spending is devoted to quinoa. In countries like Bangladesh, Malawi and Vietnam, sharp increases in the price of staple foods can plunge the poor into even deeper poverty, as they often spend more than a third of their income on them. But a study by Andrew Stevens at the University of California found that quinoa accounted for a mere 0.5% of household spending, on average.

For farmers, meanwhile, higher prices meant higher incomes. Peruvian and Bolivian quinoa-growers need all the money they can get. Before the boom, many were barely scraping by. Another study, published in March, found that the total household spending of the typical quinoa-grow-

ing family (including consumption of their own crop) was only 40% of that of the typical quinoa-consuming family.

Surging prices helped lift quinoa farmers' household expenditure by 46% between 2004 and 2013 (compared with an increase of around 30% for non-producing households). Better still, even households that did not produce quinoa enjoyed a boost to their consumption. It seems that by spending their newfound income, flush quinoa producers benefited the local economy more broadly. For every 25% increase in the price, household consumption increased by 1.75%.

Although concerns for the poorest Peruvians were misplaced in 2013, there may be cause to worry now. The high prices of 2013-14 prompted many more people to start growing quinoa, from entrepreneurial Bolivian taxi drivers to large agribusinesses. European farmers got in on the act, too. Quinoa is now grown in around 50 countries, according to James Livingstone-Wallace, founder of Quinola, a quinoa supplier.

That means a lot more supply: the combined volume of quinoa exports from Peru and Bolivia to the European Union rose by 227% between 2012 and 2015. Prices, naturally, have plummeted—by 40% between September 2014 and August 2015 alone. Following that drop, wages in the two regions that had traditionally produced the most quinoa fell by 5%, and total food consumption by 10%, according to a new report from the International Trade Centre, a development agency.

The same study suggests that many Andean farmers are hoarding quinoa, in the hope that prices will rise again. But European farmers are doing the same, according to Freek Jan Koekoek, a consultant. In other words, there is a real chance that

prices could fall further, as farmers despair and sell their stocks.

If that happens, the marginal producers likely to be pushed out of business by the glut are the original ones: poor Andean farmers. They grow quinoa because little else thrives on their steep, barren plots. Their new competitors, tilling better soil with modern farming equipment, manage yields that are up to eight times higher. An ox takes six days to plough land a tractor can handle in two hours, explains Mr Livingstone-Wallace. "With their current methods, it's unlikely they'll be able to compete on price," he says.

The "Fairtrade" price of quinoa (which is meant to correspond to the minimum required to give farmers a decent standard of living) is around \$2.60 a kilo; the current market rate is less than \$2, suggesting that Andean growers are already struggling. The idea that the Andes might cease to be the world's main source of quinoa is not far-fetched. The potato, after all, originated there, but now 15 other countries, including Bangladesh and Belarus, produce more potatoes than Peru does.

Yet Peru still produces around 4,000 varieties of potato, which foodies are trying to brand and market to Western consumers. The main hope of Andean producers is to carve out a niche in the market with their authentic, organic, "heirloom" quinoa, appealing to the same consumers who were warned away back in 2013. ■

Insurance in China

Safe or sorry?

SHANGHAI

Regulators try to tame the unruly parts of an important industry

EVEN for a country used to rapid growth, the expansion of China's insurance industry has been something to behold. Assets managed by insurers have doubled in less than four years to 13.9 trillion yuan (\$2.1 trillion). Their revenues from selling policies have accelerated, climbing 42% year-on-year in the first quarter of 2016 (see chart on next page). Most remarkable has been the increase in their workforce. Over the past six months alone, they have added 2m to their sales force. They now employ some 7.2m people, up 120% since the start of last year. Put another way, roughly one in every 50 workers in Chinese cities is selling insurance products.

Fast growth is, in one respect, just what China's insurance industry needs. The population will get much older in the coming decades, but the public pension scheme is still in its infancy. By supplementing public coverage with private poli- ►►

cies, the government hopes that people may just manage to escape penury in their old age. At the moment the government covers roughly a third of medical expenses and insurance companies less than a tenth, leaving individuals to pick up more than half the tab themselves, according to Enhance International, an insurance consultancy. That is an especially heavy burden, naturally, for the elderly.

But excessively rapid growth, built on flimsy business models, risks doing more harm than good. There have been plenty of worrying signs. The most aggressive firms have scaled up by offering guaranteed returns of 6% or more on short-term investment products, an extremely risky strategy for what is supposed to be a sober and reliable industry. To deliver these returns despite a lacklustre stockmarket, they have piled on debt and cut into their own margins. Moreover, these short-term products do not necessarily help investors through retirement: people are free to cash out when their policies mature, leaving them with no coverage against death, illness or accidents.

Regulators appear to have had enough. In March they announced their strictest rules yet to curb speculative behaviour. They barred insurers from selling products with maturities of less than one year and began to phase out those with maturities of less than three years. These measures, though somewhat crude, should help prevent mismatches between long-term assets and short-term liabilities.

This month regulators turned their attention to some of the insurers that have been among the boldest in expanding. First they sent inspectors to Sino Life Insurance Co, which has run down its capital in recent quarters. Then they went to Anbang, which has increased its assets some 50-fold over the past two years. That inspection was a particularly important signal about the clout of regulators. Many observers had assumed that Anbang would receive preferential treatment, thanks to strong political connections (its chairman is married to the granddaughter of Deng

Xiaoping, a revered former leader). But regulators blocked its \$14 billion bid earlier this year for Starwood, a big international hotel chain, and now seem to be clipping its wings at home.

More fundamentally, China has also overhauled solvency rules, which should force insurers to change the way they operate. Capital requirements had been based on simple gauges of size. Now they are much closer to the norm in developed markets, varying in line with how quickly policies turn over and how premiums are in-

vested. Firms that rely excessively on short policies or that invest heavily in the stockmarket must hold a much bigger cushion.

The heyday of rapid expansion by opportunistic firms is over, predicts Lee Yuan Siong of Ping An Insurance, one of China's biggest providers. "The government saw the danger early enough before it got out of control." If the new rules work, insurers will need to focus on persuading people to buy their policies for protection rather than as an investment. That is a safer bet, but a harder sell. ■

Crypto-investing

The DAO of accrue

A new, automated investment fund has attracted stacks of digital money

IT SOUNDS like a cult, but it wants to be a venture-capital fund of sorts. As *The Economist* went to press, the DAO (short for decentralised autonomous organisation) had already raised the equivalent of nearly \$150m to invest in startups. This, say its fans, makes it the biggest crowd-funding effort ever.

To understand the DAO it helps to keep in mind the concept of "smart contracts". These are business rules encoded in programs that execute themselves automatically under certain conditions: for example, funds are only transferred if the majority of owners have digitally signed off on a transaction. Such contracts can also be combined to form wholly digital firms that are not based anywhere in the real world, but on a "blockchain", the sort of globally distributed ledger that underpins cryptocurrencies such as bitcoin.

The DAO literally lives in the ether, meaning on the blockchain of Ethereum, one of bitcoin's rival crypto-currencies. Investors send digital coins (called "ether") to the fund, which allows them to take part in votes on whether to put money in a given project. Candidates for investment put themselves forward, providing not only a business plan, but also smart contracts that define the relationship between them and the DAO. Once a proposal is approved, funds flow automatically: firms get money under the rules specified in the smart contracts.

Schemes of this kind have not done well. The crowd may have wisdom, but not a lot of commitment. Similar but smaller vehicles operated by a firm called BitShares, for instance, are suffering from a lack of participation in votes, in large part because it takes time and energy to consider proposals. Investors in the DAO can also withdraw money not yet committed to a project at will. This means that the \$150m in ether could quickly



vanish into the ether, blue if investors got nervous.

Yet it would be unfair to dismiss the DAO as no more than a public-relations exercise for Ethereum and Slock.it, a maker of electronic locks controlled via the blockchain, which has developed the fund's smart contracts and hopes to be the beneficiary of its first investment. Many of the DAO's investors are believers, and it will provide an interesting test both of how regulators deal with a stateless fund and, in particular, what happens at such outfits when a dispute arises.

Moreover, if you believe that Ethereum is the future, it makes sense to invest in a fund that could increase demand for the currency—in particular if there are not many other ways to spend ether (the DAO, which will stop accepting new funds on May 28th, has already attracted nearly 14% of all ether ever issued). In the strange world of cryptocurrencies, faith and rationality go together like yin and yang.

Breakneck speed

China, insurance companies



Source: The China Insurance Regulatory Commission

*At March

Free exchange | Murder most foul

When periods of economic growth come to an end, old age is rarely to blame

IN JUNE America's economic expansion will be seven years old. That is practically geriatric: only three previous ones lasted longer. The record boom of the 1990s survived only ten years.

It is tempting to look at that ten-year mark as something like the maximum lifespan of an expansion in America, and to worry, correspondingly, that the current expansion's days are running short. But are they? At a press conference in December Janet Yellen, chairman of America's Federal Reserve, declared: "I think it's a myth that expansions die of old age." Yet die they do. Either Ms Yellen is wrong, or someone is bumping off otherwise healthy expansions before their time.

Like death, recessions (commonly defined as two consecutive quarters of falling GDP) are a part of life. Supply shocks occasionally prompt them: soaring oil prices in 1973 hit consumers in rich economies like an enormous tax rise, for instance, diminishing their purchasing power and thus prompting GDP to fall. More often, weak demand is to blame. Financial-market wobbles or rising interest rates cause people to cling tighter to their cash. Fear proves contagious, leading to a spiral of self-fulfilling pessimism.

But not all expansions are as short-lived as America's (see chart). The Netherlands holds the record: its longest, which ended in 2008, lasted nearly 26 years. Australia may surpass that early next year: its continuing expansion dates back to 1991. If expansions have a natural lifespan, it is longer than a decade.

Earlier this year Glenn Rudebusch of the Federal Reserve Bank of San Francisco constructed an actuarial table for America's historical expansions, much as a life-insurance company would for people. In rich countries the probability of a person's death rises gradually from middle age until the mid-80s, then quite steeply thereafter. Expansions, however, do not seem to become more vulnerable with age. There have been only 12 American expansions since the end of the second world war; the universe of people who have lived and died is somewhat larger. But the data available suggest that there was a time when cycles aged like people. Before the second world war, Mr Rudebusch notes, the odds of tipping into recession rose as an expansion got older. Yet since the 1940s age has not withered them: an expansion in its 40th month is just as vulnerable, statistically, as one in its 80th (each

has about a 75% chance of surviving the next year).

The notion of ageless recoveries is counter-intuitive. Finite business cycles seem to make sense: an economy just coming out of recession should have plenty of opportunities for investment, for example, which, once exhausted, make the onset of a new downturn more likely. Yet economists reckon cycles need not unfold like that; instead, it is possible for the composition of growth to change even as expansion continues. A booming tech sector might siphon off capital that would otherwise flow to infrastructure or housing. Those industries, in turn, could power growth once the tech boom runs its course. If all domestic investment opportunities are used up, capital should flow towards foreign investments, reducing the value of the currency and so helping exporters to spur the economy forward. As long as the end of a boom in one sector does not engender self-fulfilling pessimism in the rest of economy, the show should go on.

Why, then, should an economy ever find itself in recession? In the pre-war era, when age mattered more, governments and central banks played a much smaller part in stabilising the economy. Economic shocks (from earthquakes to financial crises) come along every so often; the longer an expansion goes on, the greater the chance that a really nasty mishap will occur, pushing the economy into a downturn.

Yet after the Depression, governments took on the job of countering pessimism. Bigger welfare states provided bigger "automatic stabilisers", meaning spending on things like unemployment benefits, which pump more money into an economy as growth weakens. Central banks began manipulating interest rates more vigorously to keep growth on track, and eventually adopted targets to help instil the expectation of steady growth.

Ms Yellen, in the ballroom, with the premature rate rise

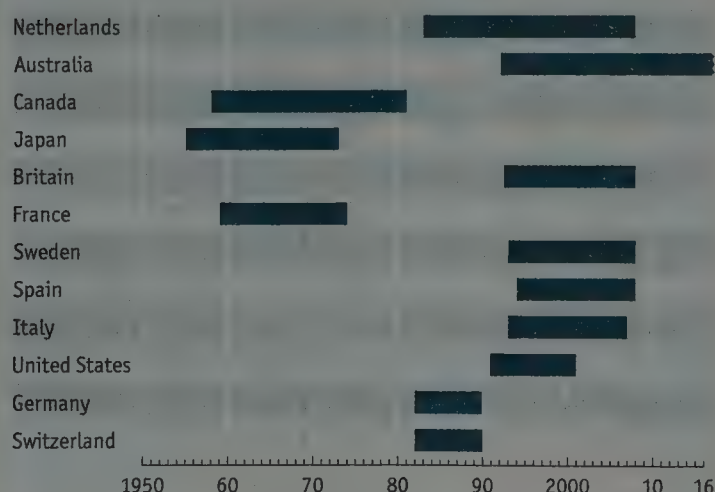
Post-war expansions are longer (and recessions shorter) than was once the case, but business-cycle immortality remains elusive. The end of some expansions is clearly the result of foul play. In the early 1980s, for instance, both America and Britain suffered recessions that were deliberately induced in order to bring down raging inflation.

In other cases the culprit is human error. As central bankers freely admit, their control over the economy is imperfect. Policy works on a delay. Since not every shock can be anticipated, a bad blow may start a recession before a central bank can adequately respond. Or an inflation-averse central bank may discover, after it is too late to adjust course, that it raised interest rates once too often. What's more, with interest rates in many economies near zero, central bankers find themselves increasingly reliant on unconventional tools, for which the margin of error is larger.

But there is a difference between misfortune and recklessness. Central banks that worry more about high inflation than low will tend to err on the hawkish side, and will find themselves steering into recession with some regularity. The Reserve Bank of Australia, which targets an inflation rate of between 2% and 3%, has given itself a floor to defend as well as a ceiling. That seems to help it from sinking into recession by mistake. The Fed, which has begun raising interest rates even as its preferred inflation measure remains below its target, has not absorbed this lesson—and Ms Yellen's comments about the natural life of expansions should not be considered an alibi. ■

Struck down in their prime

Selected countries' longest period of economic growth



Sources: Economic Cycle Research Institute; The Economist



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Improvised weapons

Hell's kitchens

Makeshift weapons are becoming more dangerous with highly sophisticated, commercially available kit

THE “hell cannons” of Aleppo pack a deadly punch. Cobbled together in Syria by militant groups fighting to overthrow the autocratic regime of Bashar al-Assad, they use an explosive charge at the bottom of a pipe to hurl a propane cylinder crammed with 40kg or more of explosives and shrapnel. A finned tail welded to the cylinder shields it from the launch blast and provides stability in flight. The Ahrar al-Sham brigade reckon the cannons can hit targets 1.5km away. Fuses detonate the cylinder upon impact or, using a timer, after it punches into a building. This is all the better to demolish several floors with a single strike.

The use of improvised weapons in conflict has a long and bloody history: from the Irish shillelagh, a walking stick that doubles as a club—especially effective when the knob at the top is loaded with lead—to the Molotov cocktail, as the glass petrol bombs the Finnish army hurled at Russian tanks during the second world war came to be known.

The modern equivalents are more high-tech and, like Aleppo's hell cannons, far deadlier. This comes from a combination of more sophisticated and easily available “off-the-shelf” equipment, and the internet providing a ready medium to spread new weapon-making ideas. The upshot is a reshuffling of the cards in modern warfare, says Yiftah Shapir, a weapons expert at Tel Aviv University and a former lieutenant

colonel in Israel's air force. Any side that begins with a technological advantage will see it erode quickly as the underdogs improve their improvisation capabilities.

The ominous consequences have led America's Defence Advanced Research Projects Agency (DARPA), an arm of the Pentagon, to try to keep up with developments by soliciting worldwide for new ways to make weapons using commercially available materials and technologies. More than 20 experts are now reviewing hundreds of submissions. To better assess the risks, some of the most promising designs will be built as prototypes and tested. This could earn their inventors awards of up to \$130,000.

Fire in the hole

The DARPA experts need to move fast. Only a few years ago the Syrian rebels were lobbing small bombs with slingshots made from lengths of rubber tubing. Now some of the hell cannons are being mounted on vehicles and fitted with recoil springs to absorb the launch explosion. This improves stability, which in turn enables greater accuracy with follow-up shots. Some designs are no longer fired by lighting a fuse, but at a safe distance with a car battery wired to the propellant charge. Bigger cannons heave oxygen cylinders and, astonishingly, even large household water-heaters packed with enough explosives to destroy a cluster of buildings.

Improvised weaponry typically is not as fearsome as that made by defence companies. But it is a lot cheaper and often effective enough, says Vincent Desportes, formerly a general in the French army and a military attaché to the United States. Despite receiving arms shipments from Iran and Russia, Syria's regime still uses its own improvised “barrel bombs”—devastating devices made by filling oil drums with explosives and scrap metal. Hizbullah, a Lebanese militia fighting to keep Mr Assad in power, also weaponises non-military materials. The group uses Google Earth to find and hit targets with rockets more accurately, adds Mr Shapir.

Even defence firms are turning to more commercially available equipment to make weapons. Lasers used to cut and weld materials in industry, for example, are now so powerful that Boeing bought a 10kw model to put into its High Energy Laser Mobile Demonstrator (HEL MD), a system it has assembled for the American army to shoot down drones and incoming mortar shells by firing a laser beam at them. Just think of HEL MD as “a welding torch” with a reach of kilometres, says David DeYoung, head of the Boeing unit that built it. While the off-the-shelf laser is powerful enough for its role, IPG Photonics of Massachusetts is now selling a 20kw laser.

Smartphones are useful in making weapons. They contain GPS navigation and frequency-hopping technology, which transmits signals that are hard to intercept or jam (both were military developments). Other useful things inside include accelerometers, compasses, gyroscopes, motion detectors and sensors for orientation, measuring magnetic fields and capturing reflected infra-red light (to turn off the screen when it detects the phone is close to the ear, saving battery power and preventing inadvertent touches). All of that can be ►►

used for missile guidance and communications, adds Mr Shapir. The guidance and remote-control systems sold with consumer drones offer additional capabilities.

Some of the improvised weapons suggested to DARPA are highly advanced, says John Main, head of Improv, as the agency's programme has been named. Once Improv's own analysis of the proposals is complete DARPA may make some of the plans publicly available to raise awareness of potential risks. Two decades ago, assessing threats from an adversary involved getting ten experts in a room for a few days. Now, says Mr Main, thanks to the profusion of information and readily available advanced technologies, we need "a very, very large 'red team'" of hundreds of outside technologists to brainstorm the types of attacks that might be concocted.

Part of the problem is that anyone can buy not just sophisticated hardware but also a 3D printer to make basic weapon components, says Rear-Admiral Brian Brakke, deputy director of operations at the Pentagon's Joint Improvised-Threat Defeat Agency. In Iraq and Syria, Islamic State has been working on dropping improvised bombs from remotely controlled model aircraft. These might carry bigger payloads than the small quadcopters widely sold as drones to hobbyists and commercial operators. The jihadist group has also begun developing remote-control systems for driverless vehicles to deliver huge improvised explosive devices without suicide-volunteers, Mr Brakke believes.

Of considerable concern is that many manufacturers of improvised weapons may not respect bans on devices deemed by many nations to be beyond the pale. Some of the barrel bombs being dropped by Syria's air force contain chlorine, an ingredient prohibited by the 1997 Chemical Weapons Convention.

The new minefield

Half a century of conflict has left the Colombian countryside littered with improvised mines. Many have been fashioned by FARC guerrillas without the use of any metal, which is prohibited by the 1996 Anti-Personal Mine Ban Convention because the devices cannot be found with metal detectors. Some rely on pressure from a foot pushing down on a syringe which squirts a reactive agent into a glass jar filled with explosive, says Camilo Serna Villegas, chief technologist with the Colombia Campaign to Ban Landmines, an NGO based in Bogotá. With peace efforts now in progress, FARC and government forces have begun clearing some minefields, but it is a painfully slow process that can involve ground being searched by hand.

The risk of nasty biological attacks has risen, too. Commercial drones used for spraying new biopesticides derived from natural materials could be adapted to

spray more sinister stuff, says Piers Millett, a former deputy head of the United Nations' implementation team for the Biological Weapons Convention.

Recent developments in biotechnology have moved the boundaries as well. So-called "biohacking" groups have begun experimenting with homespun processes, much as early computer hackers did with information technology. The biohackers see DNA as a form of software that can be manipulated to design new biological processes and devices. Some of the amateur labs are still relatively crude, but nevertheless there is concern that they could be

used to create killer bugs or provide training for bioterrorists. America's FBI has been watching developments and even organising some biohacker gatherings. That may seem reckless, but the idea is to encourage responsible behaviour and self-policing rather than risk a crackdown that drives the movement underground.

The array of deadly things that can now be improvised with modern materials and technologies is terrifying. At least knowing what is possible will provide some idea of where the dangers now lurk. That, in turn, should help deliver some defence against the weapons-improvisers. ■

Dogs and cancer

Best-friend genetics

A canine cancer that travelled the world provides a new insight into the disease

DOGS have long been man's closest animal companion. The story of how they accompanied traders and settlers to every corner of the globe has now been pieced together in an unusual way by a group studying a unique genetic tag associated with a canine cancer. And in the process, this has turned up surprising new evidence about how cancer cells survive.

Transmissible cancers are rare. One of them, canine transmissible venereal tumour (CTVT), spreads between dogs through the transfer of living cells during mating. The disease, which usually appears as genital tumours in both male and female dogs, is believed to have originated in a single dog some 11,000 years ago and survived by spreading to other dogs. It is now found in dogs worldwide.

Since that founder dog first spawned CTVT, however, the disease has changed its genetic nature, according to Andrea Strakova, Máire Ní Leathlobhair and Elizabeth Murchison of the University of Cambridge's Department of Veterinary Medicine and an international team of colleagues. They looked at the DNA of mitochondria in 449 tumours in dogs from 39 countries. Mitochondria are units within cells that act as power plants, turning the energy contained in sugar into a form of fuel which a cell can use. Mitochondria have their own genome, which is likely to be a hangover from a time when they may have existed as free-living organisms. Previous studies have shown that mitochondrial DNA has been able to transfer from body cells in infected dogs into the cells in their tumours, and hence to the tumours of dogs that were subsequently infected.

As the group report in *eLife*, they found evidence of the cancer having "stolen" mi-



One man and his dog

tochondrial DNA from the cells of its host on at least five occasions during the long history of the disease. This may well have been done to help the tumour survive, says Ms Strakova. By mapping the points at which mitochondrial DNA made the transfer it was possible to work out how the tumours are related to each other.

Of the five main branches of the family tree (known as "clades") which the researchers came up with, the oldest arose 1,000-2,000 years ago, probably in India, where the clade still persists. One of the most common clades spread from Russia or China around 1,000 years ago, but did not arrive in the Americas until within the last 500 years, suggesting it was taken there ►►

by European colonialists. Contemporary art shows conquistadors used dogs both for protection and as a source of food. The disease arrived in Australia around the turn of the 20th century, most likely among dogs accompanying European settlers.

Yet the study also found an exceptional dog in Nicaragua in which its tumour had not just mingled with some mitochondrial DNA from its canine host but actually spliced the two sequences together. This so-called "recombination" of DNA in mitochondria is extremely unusual. It could be happening on a much wider scale, the researchers believe, perhaps even in human cancers, where it would be much more difficult to detect because the tumour's mitochondrial DNA is likely to be very similar to the mitochondrial DNA in the patient's normal cells. It is not yet known what the significance of mitochondrial DNA recombination in cancer could be. But it might be that the genetic changes it bestows somehow help cancer cells. If so, blocking the process could provide another way to fight the disease. That would be one more debt man owes to his dogs. ■

Clinical trials

Better with bitcoin

Blockchain technology could improve the reliability of medical trials

CLINICAL trials are a murky old world. The pharmaceutical industry is keen to get new drugs to market and researchers are just as keen to report positive results. This can produce some rather unpleasant side-effects. Selective reporting of data from trials is rife. In one infamous example, a 2001 study reported that paroxetine, an antidepressant, was safe and effective for treating the illness in teenagers. It later emerged, however, that this was based on new measures of the drug's effectiveness, introduced only after the drug had failed to show any significant improvement in the outcomes that had been specified when the trial was first drawn up. Later studies showed that the drug increased the risk of suicidal behaviour in children.

How to guard against such things got Greg Irving, a family doctor and a researcher at the University of Cambridge, thinking. He came up with a way to improve the reporting of clinical trials with the blockchain technology underlying bitcoin, a digital currency. The blockchain is a database that acts as a public ledger of all transactions with the currency, and is thought to be almost completely tamper-proof because it is validated and stored independently on thousands of different comput-

Robotics

The fantastic voyage

Sending tiny robots into the body to collect foreign objects

ROBOTIC surgery is one thing, but sending a robot inside the body to carry out an operation quite another. It has long been a goal of some researchers to produce tiny robotic devices which are capable of travelling through the body to deliver drugs or to make repairs without the need for a single incision. That possibility has just got a bit closer.

In a presentation this week to the International Conference on Robotics and Automation in Stockholm, Daniela Rus and Shuhei Miyashita of the Massachusetts Institute of Technology described a robot they have developed that can be swallowed and used to collect dangerous objects ingested accidentally. The device is based on foldable robot technology that their team of researchers have been working on for years. The basic idea is to make robots that fold up, a bit like origami, into small structures less than a few millimetres in diameter so that they can be swallowed like tablets. Then, once inside the body, the capsules enclosing the robots dissolve, allowing the devices to unfold, reconfigure themselves and get to work.

To test their latest version, Dr Rus and Dr Miyashita designed a robot as a battery retriever. This might seem to be an odd task, but more than 3,500 people in America alone, most of them children, accidentally swallow the tiny button cells used in small electronic devices every year. Because these batteries contain a charge, they have an unpleasant tendency to burn holes in the stomach. They can be removed surgically, but it is a tricky and unpleasant procedure.

To start with, the researchers created an artificial oesophagus and stomach made out of silicone. It was closely modelled on that found in a pig and filled with simulated gastric fluid. The robot itself is made from several layers of different materials, including pig intestine, and

boils the data down into a unique string of characters known in cryptography as a "hash". Even a small change to the original file, such as the addition of a full stop, would result in a completely different hash. (Conversely, it is impossible to use the code to reconstruct the contents of the original file.) Such strings are also used in bitcoin transactions.

To add a record of the codified protocol to bitcoin's public ledger, its hash must be used in a bitcoin transaction. To do that Dr Irving used the hash generated from the



Ice and an origami slice

contains a little magnet. This is folded up and encased in a 10mm x 27mm capsule of ice. Once this reaches the stomach the ice melts and the robot unfolds. It is moved and steered with the use of a magnetic field outside the body.

In their tests, the robot was able to latch onto a button battery with its own magnet. Dragging it along, the robot could then be guided towards the intestines where it would eventually be excreted through the anus. After the robot had done its work, the researchers sent in another robot loaded with medication to deliver it to the site of the battery burn to speed up healing.

The team sent their robots on dozens of missions, each time successfully extracting the offending object. They got pretty good at it too, averaging five minutes to conduct the entire process.

Since the artificial stomach was transparent on one side, the researchers were able to see the batteries and visually guide the robots. The next step will be to try this procedure in pigs. That will require help with guidance from imaging systems such as ultrasound and magnetic resonance imaging. It will be a bit more of a challenge, but Dr Rus and Dr Miyashita are determined to succeed.

To add a record of the codified protocol to bitcoin's public ledger, its hash must be used in a bitcoin transaction. To do that Dr Irving used the hash generated from the

To add a record of the codified protocol to bitcoin's public ledger, its hash must be used in a bitcoin transaction. To do that Dr Irving used the hash generated from the ►►

► trial protocol as a “private key”—essentially a password that allows someone to spend bitcoins in his online wallet. Bitcoin users usually randomly generate a hash for the same purpose. He then transferred a small sum of money from his bitcoin wallet to a second bitcoin wallet. The transaction created a “public key”—a second string of characters that is time-stamped and entered in the blockchain’s ledger.

Anyone with a copy of the trial protocol should be able to reproduce the above steps to check if they resulted in the same public key. This would prove that the copy of the protocol matched the original. To show that this was the case, Dr Irving gave his protocol to John Holden, also a general practitioner, who used it successfully. Though the process might seem to be convoluted, Dr Irving and Dr Holden say it took less than five minutes.

Dr Irving believes the method could prevent “hidden outcome switching”, the egregious and statistically flawed practice of secretly changing the focus of a clinical trial to fit the results. A study last year of 137 trials found 60 reported on outcomes they

were not looking for, according to their original protocol. The COMPARE project, which monitors clinical trials, found only nine out of 67 studies it has so far looked at had reported their results properly.

With about 20,000 studies registered each year on ClinicalTrials.gov alone, such problems are likely to be the tip of a very large iceberg, Dr Irving contends. Public keys for protocols should be uploaded to trial registries, he argues, and included in research papers. Researchers and medical journals could speedily check whether the right results were being reported. Ultimately, the process could be automated.

Another benefit, paradoxically, is that the protocol for studies could be hidden until completed. This might be useful for commercially sensitive trials of new therapies. As long as the public key was uploaded to a registry when the trial began, the protocol could be verified later without the worry that it had been changed during the study. Dr Irving would now like to test his ideas on a small number of trials. And, of course, to report the results properly. ■

Forest fires

Burning benefits

Controlled fires can both help prevent combustion and reduce insect attacks

THE giant wildfire that raged recently through the Canadian province of Alberta, forcing more than 80,000 people to flee their homes, was caused in part by global warming producing drier conditions. Yet conservation efforts to prevent burning have not helped either, say some experts. Forests can regenerate after being burnt, with much of the tinder-like underbrush being cleared away and dense tree canopies broken up so that young trees can get the sunlight they need to grow. Now a new study finds that fires, whether started naturally or under controlled conditions, can also thwart nasty insect infestations.

Like many useful discoveries, this one came about somewhat by accident. Sharon Hood of the US Forest Service was working with the University of Montana and colleagues on the ecology of a forest in western Montana that had been managed in a number of ways to make it more resistant to fire. They were monitoring areas that had been thinned to open up the canopy, exposed to controlled burns to remove ground growth, or both. To provide a control area for comparison, the team also kept an eye on part of the forest that had not seen a blaze since the 1800s. They were planning to monitor the forest for many

years to come, but then the beetles arrived.

These were mountain pine beetles, a pest in North America. The beetles lay their eggs in the phloem layer inside the trees’ bark, which conducts nutrients from the leaves down to the roots. When the eggs hatch, the larvae feed off the phloem, draining the tree of its vital resources. If the number of beetles is low, trees are able to defend themselves effectively by flooding

the areas under attack with an insecticidal resin. However, in great numbers the beetles tend to use chemical signalling compounds called pheromones to concentrate their invasion on one tree at a time, which exhausts resin levels and ultimately kills the tree. Beetle outbreaks have taken place for millennia, but recently have been getting much larger and lasting a lot longer.

Dr Hood knew the beetles were particularly problematic in forests where fires had been suppressed for a long time, although no one was sure why. The arrival of the beetles in 2005, just five years after the team began their monitoring, provided a golden opportunity to find out. So the researchers compared a 2012 survey of the forest with the findings from 2005. They found 720 of 2,189 trees had died during that time. Obvious evidence in the form of larval tunnels and bore holes showed that the beetles were responsible for their demise. However, the distribution of the dead trees was not evenly spread among the various zones.

As Dr Hood reports in *Ecological Applications*, the death toll was 50% in the control zone, 39% in the area intentionally burned, 14% in the one both thinned and burned, and nearly zero where it was merely thinned. There are two main reasons for this, she argues. First, the trees in the burn-only zone had particularly low levels of chemical compounds known as monoterpenes that the beetles use to make their pheromones. Without these chemicals, Dr Hood speculates that the beetles found it more difficult to co-ordinate their attacks. Second, trees living in the thinned-only forests were healthier overall due to reduced competition for resources and had larger supplies of resin available to them. Thus they were in a much better position to fend off the beetles. Thinning and controlled burning may well be a good way to reduce wildfires and insect infestations, but organising this over the vast swathes of land that have been subject to fire suppression for over a century will not be easy. ■



Terrifying, but cleansing

Greece and Egypt

Deep rising

Treasures excavated from the Mediterranean show that when it came to subduing Egypt, the ancient Greeks knew how to win hearts and minds

SOME time, probably in the eighth century AD, earthquakes, floods and subsidence caused the Egyptian coast at Alexandria and towards the Nile delta to sink beneath the waves. Tantalising references in ancient Greek and Egyptian texts to cities and temples along that coast were all that was left of them. Then in 1933 a Royal Air Force pilot, flying over Aboukir Bay east of Alexandria, thought he saw something. He told Prince Omar Toussoun, an Egyptian scholar, who found marble and red granite columns two kilometres offshore. At last, here was concrete evidence. Wars prevented further investigation, but from the 1960s onwards teams of underwater archaeologists have been mapping and excavating a whole submerged Graeco-Egyptian world near Alexandria, the city founded by Alexander the Great after he took Egypt from the Persians in 332BC.

Now, for the first time, an exhibition arranged in collaboration with the Egyptian Ministry of Antiquities highlights the excavations begun in the 1990s by an underwater team headed by Franck Goddio, founder of the Institut Européen d'Archéologie Sous-Marine (IEASM). Using new nuclear magnetic-resonance technology, Mr Goddio has located two more sunken cities, Canopus and Thonis-Heracleion, near the western branch of the Nile delta. The cities date back to the seventh century BC, long before the foundation of Alexandria, and their excavation adds to what was already known—that there was extensive commercial and religious interchange between Egypt and the rest of the eastern Mediterranean in the first millennium BC.

Some of this had been learned from work at Naukratis—a harbour city upriver from Canopus and Thonis-Heracleion, which was a trading post to the rest of Egypt. Writing in the fifth century BC, Herodotus reported that during the previous century the Egyptian king Amasis granted Greek traders and sailors special privileges at Naukratis, allowing them to set

up sanctuaries to their gods there. Never submerged, Naukratis has been extensively researched ever since two British archaeologists, Flinders Petrie and David Hogarth, began excavations from the 1880s onwards.

The show draws as much on Naukratis as on the “sunken cities” of its title, revealing Greeks and Egyptians living side by side, their temples within waving distance, their styles and practices distinct but occasionally overlapping. Archaically smiling alabaster and limestone youths in Egyptian poses, made in Cyprus and found in a Greek sanctuary at Naukratis, give a sense of the sheer cosmopolitanism of the place. And it is there in the smaller things too—a small limestone figure of Horus the child, Greek coins, scarabs and amulets designed

for both Greek and Egyptian markets.

Differences, of course, remained. The Greeks always thought the Egyptians strange and exotic. Herodotus said they did everything in reverse and Strabo, a Greek geographer from the first century BC, could never get used to animal worship. For their part, the Egyptians kept foreign trade under tight control. One of the most impressive exhibits, pulled good as new from the sea at Thonis-Heracleion, is an inscribed stone slab, the twin of one found at Naukratis in 1899. Its delicately carved hieroglyphs, here beautifully lit, describe hefty taxes on imports and exports payable to an Egyptian goddess.

This, then, was the background to Alexander the Great and the Ptolemaic dynasty that followed him, who managed as foreigners to rule Egypt for 300 years until 31BC. The existing traffic and mutual accommodation between Greeks and Egyptians smoothed the way, and led to a remarkably canny piece of political diplomacy by the conquerors to go further still—to honour the Egyptian gods outright and to Egyptianise themselves for their subjects. It was a propaganda project, executed with a stylish sense of theatre that is mirrored in the whole design and atmosphere of the exhibition itself.

For a moment at the entrance, visitors find themselves in a region of dim, green, sub-aqueous light before coming up for air, as it were, to a grand welcome from a huge, faintly smiling pink granite statue. A quick swivel to the left brings another *coup de théâtre*: a long perspective leads the eye through an opening to a graceful woman in clinging draperies and, beyond, to two more towering pink-granite figures: a Pharaoh and his consort. Scattered through the rooms are videos of them and others lying among the flickering fish, gazing at strange, slow, goggle-faced divers.

But, as it becomes clear, that towering pair in the distance ►►

Also in this section

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Rise and shine

► turn out to be Ptolemies in pharaonic regalia. The consort even wears the horns of Hathor, the Egyptian goddess associated with Isis, who together with her brother Osiris and their son Horus made up a divine trinity that was sacred to the Egyptians. Each of these Egyptian gods also corresponded to a Greek deity (there is a helpful chart in the exhibition). And it was precisely by exploiting this fluid system of divine correlations that Alexander and the Ptolemies managed to gain sanction from both sides and legitimise their political power.

Much of this show is about the Osiris

cult. There is a magnificent statue of a bull, the Apis, revered in Egypt as an aspect of Osiris and known in its mummified form as Osiris-Apis. The Ptolemies honoured this animal deity, but they also had their own Greek version, Serapis, with a human form. A massive sycamore carving of him sits across from the bull, with flowing drapery and loosely curling hair and beard. Such pragmatic and aesthetic shifts between the two cultures are at the heart of the show. Alexandrian workshops could do you Greek-style, Egyptian-style or Graeco-Egyptian-style to order. The Rosetta Stone (not included in the show) stipu-

lated that temple statues of Ptolemy V should be “made in the native way”. As for that graceful woman with clinging drapery seen earlier—she stands on a borderline. She was Arsinoe II, a Ptolemy. Her marriage to her brother Ptolemy II reflected the sacred union of Isis and her brother Osiris. The sculptor, using black Egyptian stone, has posed her “in the native way”, and her garment is tied in the Isis fashion. But her lifelike flesh and the fine lines of her dress proclaim her exquisitely Greek. ■

“Sunken Cities: Egypt’s Lost Worlds” is at the British Museum from May 19th until November 27th

Johnson | Prevailing wind

The “usage wars” are coming to an end, and good sense is winning

FOR half a century, language experts have fallen into two camps, with most lexicographers and academic linguists on one side, and traditionalist writers and editors on the other. Should language experts aim to describe the state of the language accurately? (Webster’s Third New International Dictionary, in 1961, shocked the world by including common but disparaged “ain’t” and “irregardless”.) Or should they prescribe how the language should be used (“Irregardless ain’t a word”)? Over the decades, the two sides have traded insults; prescribers are authoritarians in denial about the real world and describers are permissivists with no standards.

Two authors in the past two years have made clear that it is time to move on. Steven Pinker is a describer, a linguist and cognitive scientist. But in 2014 he published “The Sense of Style”, a guide to good writing that ended with a section of prescriptions: do this, not that. They were grounded in description, not dogma—but prescriptions they were nonetheless.

Now come two new books by Bryan Garner, a proud prescriptivist who reaches the same point from the opposite direction. Mr Garner has tangled with Mr Pinker and other descriptive linguists. His explicit aim is to tell people what they should and shouldn’t do. But he has also called himself a “descriptive prescriber”, and this is clearer than ever before in the fourth edition of his masterly usage dictionary, “Garner’s Modern English Usage”, and a new book, “The Chicago Guide to Grammar, Usage, and Punctuation”. These new books rely not on mere clippings, but on big data: millions of books scanned by Google. This lets Mr Garner compare “he pleaded guilty” with the upstart “he pled guilty”. “Pled” is gaining ground, but “pleaded” is still three



times as common in books. On this basis, Mr Garner prescribes: stick with “pleaded”. But he allowed Google’s data to change his mind, too: “run the gantlet”, however traditional, has long been outnumbered by examples of “run the gauntlet”, so he has accepted the newer usage.

The conflict between description and prescription should never have become so bitter. Mr Pinker is a fine English stylist; it is no surprise that he has opinions on whether some words and formations are better than others. And Mr Garner is a deeply read man (and a lawyer), so it should come as no surprise that he marshals evidence. But both camps were ill-served by less thoughtful standard-bearers. Many clueless prescribers really did push dud rules: the ban on split infinitives, the ban on ending sentences with prepositions, the notion that “since” cannot mean “because” and so many more. These were passed down from teachers to students over gen-

erations. When academic linguists began systematically investigating English by looking at texts and listening to speakers, they found that many such “rules” were anything but, and some began taunting the rule-promoters. They also sought to defend non-standard dialects, where for example double negatives (“I ain’t got no”) are ordinary, not ignorant.

In the pushback against a history of prejudices, prescription represented authority and tradition, and description represented democracy and progress. But sensible writers on both sides have come to agree, however tacitly, that there is a variety, called standard English, with rules that can be found by looking at large volumes of the stuff. The best prescribers are becoming ever more informed, and the describers more comfortable with the idea of giving people “right” and “wrong” judgments on standard English.

A sensible consensus emerges on most usages. Linguistic liberals and conservatives may still disagree on smaller issues: Mr Garner prefers the traditional “healthful” when talking about things like diets and exercise; most people prefer “healthy”. Mr Pinker defends “more unique”, whereas many pundits still reserve “unique” to mean an unscalable “one of a kind”. On these issues, reasonable people can disagree: Johnson is one of those who will reserve “He literally exploded laughing” to refer to a bloody scene requiring a mop, even though he knows many great writers have used “literally” figuratively.

In the end, the test of a good pundit is one who will declare the methods and evidence that went into a judgment call. On that, the best descriptivists and prescriptivists should be ready to sign an armistice in the long and—not literally—bloody usage wars.

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Victorian crime

Boys' own

The Wicked Boy: The Mystery of a Victorian Child Murderer. By Kate Summerscale.

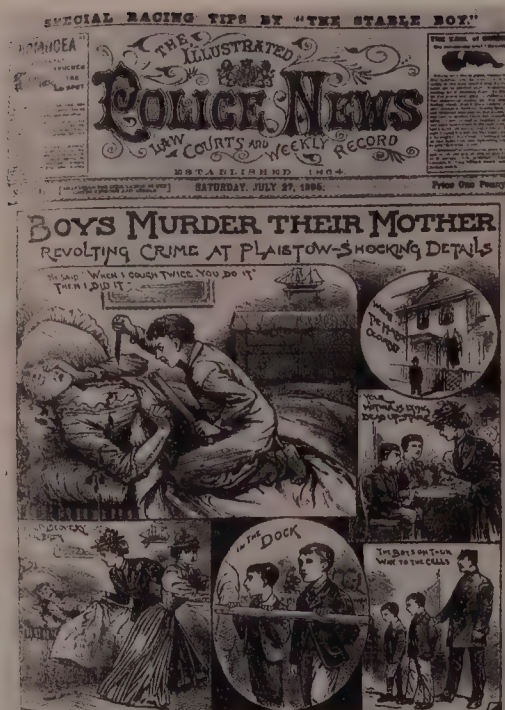
Bloomsbury; 378 pages; £16.99. To be published in America by Penguin in July; \$28

ON A Sunday afternoon, George Orwell believed, nothing is more pleasurable than to settle down with a good, true, murder story. Kate Summerscale has a nose for such stories. In the best-selling prizewinner, "The Suspicions of Mr Whicher", she explored the mystery of a Victorian infant found with his throat cut. In her new book, "The Wicked Boy", the victim is a working-class wife and mother. Within a few pages her murderer has been identified. The challenge, to which Ms Summerscale rises wonderfully well, is to sustain the reader's interest in him for the remaining 50-odd years of his life.

The story begins in the summer of 1895, during a heatwave. On Monday July 8th, two young East End boys, 13-year-old Robert Coombes and his younger brother, Nattie, set out to watch W.G. Grace play at Lord's cricket ground. There seemed to be nothing odd in their behaviour, except perhaps that when they came home they did not go upstairs to sleep, but hunkered down uncomfortably in the back parlour. During his father's frequent absences at sea, Robert was used to sleeping beside his mother. But by that Monday night Emily Coombes was dead, lying on her bed with two gaping wounds near her heart, her body festering in the heat. It was not until nearly a fortnight after the murder that the milkman noticed a noxious smell and raised the alarm. Emily was found badly decomposed and swarming with maggots.

Robert openly admitted killing his mother, but why did he do it? At his trial he said it was because she had been beating Nattie. Emily was known to vacillate between doting indulgence and violent rages; Robert was prone to headaches and excitability, and addicted to the cheap, lurid tales of violence known as "penny bloods". As he faced the prospect of hanging, he became "skittish, excited", but despite the urgings of the gutter press, who branded him a "half-formed monster", the jury was merciful. He was declared insane and sent to Broadmoor, joining 11 other men committed for matricide.

In the most evocative section of the book, late-Victorian Broadmoor is portrayed as a pastoral idyll, where patients, free of all responsibility, entered a "suspended existence, with little reference to the past or the future". The tranquil setting and dependable pattern of the days seem

**Morality tales**

to have had a steadying effect on Robert. He learned tailoring and to play the violin and cornet, and in 1912, when he was 30, he was released. He emigrated to Australia, then served with distinction as a stretcher-bearer at Gallipoli.

And there this strange tale might end, except that through a mixture of serendipity and meticulous research, Ms Summerscale is able to add one final, heart-stopping twist. She writes throughout with measured restraint; but in her last paragraph she allows her feelings to show. The murderer Robert Coombes has won her admiration and affection—even love. ■

Free speech**A right, not a duty**

Free Speech: Ten Principles for a Connected World. By Timothy Garton Ash. Yale University Press; 491 pages; \$30. Atlantic Books; £20

ON MARCH 31st Jan Böhmermann, a German comedian, read out a satirical poem on live television. He had admitted beforehand that the verses—in which Recep Tayyip Erdogan, the president of Turkey, is described as a zoophile and paedophile, among much else—would land him in trouble. He was right: Mr Böhmermann may now face charges under an arcane German law which criminalises insults against foreign heads of state. Angela Merkel, Germany's chancellor, may repeal the law, but not before the authoritarian Mr Erdogan has been able to exploit it.

Mr Böhmermann's case makes the pub-

lication of "Free Speech" by Timothy Garton Ash, an academic at Oxford University, particularly timely. In 2011 Mr Garton Ash created freespeechdebate.com with students at his university. Before that, he had personal experience of how free speech can be curtailed while travelling in eastern Europe before the fall of the Berlin Wall: he describes a Polish censor's verdict he received in 1989 for an article on the "total bankruptcy" of socialism, and watching a woman swallow a piece of cigarette paper after asking him to memorise the message on it, eating her words. The result is a powerful, comprehensive book.

The starting point of "Free Speech" is twofold: that increasing urbanisation and the spread of the internet makes the world a "global city". This has increased the possibilities for freedom of expression, but also the consequences that stem from it. A video posted online in one country can be found offensive in another, years later, and lead to protests and violence.

Mr Garton Ash argues forcefully that despite, or perhaps because of, these trends there is an increasing need for freer speech, and that "unnoticed by many of us, a great power struggle over the shape, terms and limits of global freedom of expression is raging around us, inside that box in your pocket and perhaps even inside our heads." The book is organised around ten sensible "principles", among them that everyone should be able to express themselves; that they should not threaten violence; that there should be a free press and that people should be able to protect their privacy.

Mr Garton Ash goes to the Wikimedia Foundation in San Francisco and gives talks on free speech just off Tahrir Square in central Cairo. He writes about the "trigger warning" and "no platforming" debates taking place in universities such as Oxford. The role of the state, in enforcing hate-speech laws and invading people's privacy, is probed and found wanting. Examples abound of people whose speech has been curbed: from dissidents in China being locked up or harassed to anticlerical writers in Europe being prosecuted under blasphemy or hate-speech laws.

Mr Garton Ash does not call for total freedom of speech. He believes child pornography should be banned, for example, and that those who post "revenge porn" should be prosecuted. Overall he makes the case that people have a right, but not a duty, to offend. Better education and a more civil society should help people become more tolerant of one another, and also of their differences. The alternative is a higher degree of state intervention that would stoke resentment, particularly among young people, and end up isolating people from each other. "Only with freedom of expression", he argues, "can I understand what it is to be you." ■

Man Booker International Prize

Dendrophilia

The Vegetarian. By Han Kang. Translated by Deborah Smith. Hogarth; 192 pages; \$21. Portobello; £7.99

ONE of the most erotic literary novels of the season is a slim South Korean work about a woman who forsakes eating meat. On May 16th “The Vegetarian” by Han Kang won the 2016 Man Booker International Prize (MBIP) for fiction after a fiercely contested final judges’ meeting that pitched books from Angola, Austria, China, Italy and Turkey, as well as South Korea. Translated by Deborah Smith, a young English scholar who began learning Korean only seven years ago, “The Vegetarian” has been praised on both sides of the Atlantic as strange, visionary and transgressive.

Written in three parts, each with a different narrator, the book begins quite plainly. “Before my wife turned vegetarian, I’d always thought of her as completely unremarkable in every way.” This subversive act, inspired by a dream, fractures the family life of the heroine, Yeong-hye. Her rebellion takes on increasingly bizarre and frightening forms. Seemingly ordinary relationships turn into a maelstrom of violence, shame and desire.

At the awards dinner at the Victoria & Albert Museum in London, Boyd Tonkin, chairman of the 2016 MBIP judges, said: “In a style both lyrical and lacerating, [the story] reveals the impact of this great refusal both on the heroine herself and on those around her.” As Yeong-hye’s father tries to force-feed her and her husband divorces her, the novella veers from domestic drama to artistic parable and on, in a long, drawn-out silent scream, to a meditation on literally becoming a tree. “I wanted to describe a woman who desperately didn’t want to belong to the human race,” Ms Kang said afterwards. “Humans commit such violence.”

After the Booker Prize Foundation changed the rules in 2013 to allow any author writing in English and published in Britain to vie for its long-standing annual Man Booker Prize for fiction, the rules for the MBIP were also adjusted. The prize used to be given every two years for a body of work, written in English or translated. Starting in 2016, it will be given for a single translated book published in Britain within a particular year. For the 2016 prize the judges read 155 submissions.

The £50,000 prize, divided equally between author and translator, comes at a moment of increasing interest in translated fiction in Britain. The six autobiographical

novels by Karl Ove Knausgaard, “My Struggle”, and the four Neapolitan novels of Elena Ferrante (the last of which, “The Story of the Lost Child”, was also short-listed for this year’s MBIP alongside “The Vegetarian”) have given erstwhile insular Britons a taste for foreign fiction.

A new survey by Nielsen Book, commissioned by the MBIP, showed that although literary fiction accounted for only 7% of fiction sales in Britain in 2015, translated fiction sales have doubled in the past 15 years, from 1.3m to 2.5m copies, at a time when the overall market for fiction fell from 51.6m in 2001 to 49.7m. Moreover, translated literary fiction now sells better than books originally written in English. In 2001 the average sale of a literary fiction title written in English was 1,153 copies, whereas the average for a translated title was only 482 copies. By 2015, the position was reversed: the average sale for a fiction title written in English was just 263 copies, whereas the average for a translated title was more than twice that—531 copies. ■

Benedict Anderson

Indonesian scholar

A Life Beyond Boundaries. By Benedict Anderson. Verso; 205 pages; \$24.95 and £14.99

IN SOUTH-EAST Asia Benedict Anderson, who died last December aged 79, was an intellectual giant. In 1966 he was part of a team at Cornell University that published an influential report on what really happened during the violent takeover of Indonesia in October of the previous year. The report was leaked to the *Washington Post* and Anderson was eventually barred from entering the country.

He remained cut off from Indonesia for 27 years until the fall of Suharto’s dictatorship. But he found new passions, studying Thailand and the Philippines. In 1983 his meandering studies and wide reading led him to write the book he is most famous for, “Imagined Communities”, which explores the enduring allure of nationalism.

Outside South-East Asian circles, Anderson’s prolific and diverse output is more obscure. This should change with the publication of his memoir, “A Life Beyond Boundaries”. As the title suggests, Anderson is an enemy of the bubble, whether nation, school or language. He returns again and again to an image in Thai and Indonesian cultures of a frog who lives its entire life under half of a coconut shell. “Sitting quietly under the shell, before long the frog begins to feel that the coconut bowl encloses the entire universe,” he writes. “The

moral judgment in the image is that the frog is narrow-minded, provincial, stay-at-home and self-satisfied for no good reason. For my part, I stayed nowhere long enough to settle down in one place, unlike the proverbial frog.”

Reading Anderson feels like emerging from the coconut shell. You come away wanting to see films by Apichatpong Weerasethakul, a Thai film-maker he admired, to learn Tagalog on the side or to read a grand Filipino novel, “Noli Me Tangere” (“Touch me not”), by José Rizal, which Anderson tried to translate line by line in an effort to learn Spanish. He praised Indonesia’s great young novelist, Eka Kurniawan.

Born in 1936 in Kunming, in Yunnan province, to an Irish father and an English mother, Anderson (pictured in China with his nanny) moved to Ireland, along with his two siblings, in 1945 after a brief period in America. His father died soon after; his mother became a guiding force. Anderson went to Eton and then to Cambridge, before going to Cornell as a teaching assistant. There, he met George Kahin, a leading expert on Indonesia whose lectures set Anderson on his path. This willingness to be open to new experiences and challenges was the key to his brilliance.

“Scholars who feel comfortable with their position in a discipline, department or university will try neither to sail out of harbour nor to look for a wind,” he writes, paraphrasing an expression in Indonesia. “But what is to be cherished is the readiness to look for that wind and the courage to follow it when it blows in your direction.” Although “A Life Beyond Boundaries” is about the life of a scholar, it is asides like these that give the book a universal touch. Anderson went to three privileged institutions of learning. They could have given him many opportunities to remain in his bubble. But he just wasn’t that kind of frog. ■



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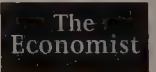
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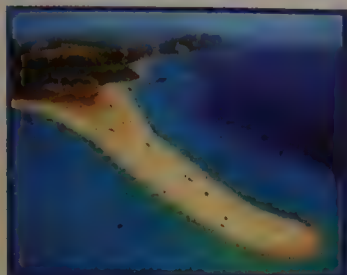
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HELLENIC REPUBLIC ASSET
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REQUEST FOR PROPOSAL

For the exploitation of a property
in the Municipality of Kassandra,
Kalandra area, Prefecture of
Chalkidiki



I. PREAMBLE

The Hellenic Republic Asset Development Fund S.A. (the Fund) launched on December 8th 2014 an international tender (the Tender) for the development of parts of a property situated in the Municipality of Kassandra, Kalandra area, Prefecture of Chalkidiki and is known as "POSEIDI KALANDRAS SEASHORE AND CAMPING" (the Property).

The Property will be developed in accordance with the special town planning development plan referred to in article 12 et seq. of Law 3986/2011, as in force, namely preparation of a Special Development Planning Zone (ESCHADA).

On February 17th 2016 the suspension of the Tender was decided. The BoD of HRADF decided the re-launch of the Tender on April 26th 2016, modifying the object of the Tender and, specifically, the size and boundaries of the Property.

II. THE PROPERTY

The Kassandra peninsula area in Chalkidiki constitutes a popular and established destination, selected by upscale international and Greek tourists. The Kassandra peninsula area includes a large number of luxury hotel facilities which attract upscale tourism in the area. The Poseidi area includes locations of special natural beauty and environmental interest. The Property is located at an exceptional geographic location and has a sea front of 370m.

The Property of a total surface of approx. 200,000m² with all its components, features and facilities (including the camping facilities, etc) is easily accessible by car or by plane and is located in a distance of approximately 100 km from the city of Thessaloniki.

Given its location, the Property is indicatively suitable for tourism & leisure uses, e.g. hotel and supporting hospitality and leisure facilities.

III. TENDER PROCESS

The Tender Process is conducted in one phase.

The Fund has available to interested parties documents and information relating to the tender through a virtual data room (VDR).

The Request for Proposal (RfP) of the Tender was uploaded on the site www.hradf.com and on the VDR on December 8th 2014, while with the restart of the Tender an announcement for the amendments of the RfP will be uploaded as well as an updated version of the RfP

incorporating all amendments until today.

Only fulfillment of financial criteria and not technical, is required according to the terms and conditions of the RfP.

Following the selection of the Preferred Bidder, the Share Purchase Agreement will be signed. The draft of the SPA has also been uploaded on the VDR.

Interested parties have to pay the amount of €1.000 (including VAT) and sign the confidentiality agreement and the VDR rules in order to gain access to the VDR.

IV. DEVELOPMENT

The Property will be developed through the transfer of the total share capital of a société anonyme company/ies, which will be set up by the Fund, to which it will contribute the rights in rem which are described on the RfP.

V. INFORMATION FOR REQUEST FOR PROPOSAL

Interested parties that wish to participate in the Tender Process must submit their offer in accordance with the terms and conditions of the Request for Proposal, as amended and in force today, no later than 17:00 Greece Time, on July 29th 2016. The place and manner of submission will be determined in the Request for Proposal.

Any amendment of the RfP will be published at Fund's website.

VI. COMMUNICATION - CLARIFICATIONS

Interested parties may request clarifications regarding the Tender Process in writing, in accordance with the conditions of the RfP, until July 22nd 2016. Furthermore, Interested parties which will have gained access to the VDR, will have the opportunity to (a) conduct site visit to the Property and (b) establish communication with the legal and technical advisor to the Fund in relation to the draft Shares Purchase Agreement and the draft ESCHADA plan respectively.

For more information, interested parties may contact the following persons of Alpha Bank, which is the financial advisor to the Fund for the Tender:

a) Ms Despina Kantzi, tel +30 210 326 2859, fax +30 210 326 2877, email: despoina.kantzi@alpha.gr, and b) Ms Anna Kotroni, tel +30 210 326 2893, fax +30 210 326 2877, email: anna.kotroni@alpha.gr.

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Capital Investments & Brokerage / Jordan Ltd. Co.

INVITATION TO BID FOR THE ACQUISITION/PURCHASE OF SHARES OF JORDAN MAGNESIA COMPANY LTD

Capital Investments & Brokerage / Jordan Ltd. Co. ("CapInvest") is pleased to invite all interested parties to participate in the bid process in connection with the sale of 100% of the share capital of Jordan Magnesia Company Ltd ("JorMag"). CapInvest is acting as the financial advisor to JorMag in connection with the sale transaction.

Company Background

- JorMag is a Jordan-based mining company founded in 1997 to extract, produce, and market a variety of specialty magnesia products including caustic calcined magnesia and dead-burned magnesia.
- JorMag is currently the only company in Jordan with duly granted rights to extract, produce and market magnesia from the resource-rich Dead Sea. JorMag also has rights to high purity limestone deposits that are abundant at a nearby quarry located in Al-Qatranah area in Jordan.
- JorMag owns a magnesia plant located at the southern end of the Dead Sea in Jordan with an annual production capacity of 60,000 tons of magnesia products.
- JorMag benefits from a preferential tax-regime (designated a free economic zone), fully operational ancillary infrastructure, and contractual arrangements with the surrounding mining companies in the Dead Sea concession area to provide the necessary operational support, critical infrastructure, and key raw materials.

The Bidding Process

After executing a confidentiality agreement, qualified prospective buyers will be provided with access to a virtual data room to undertake their due diligence review of JorMag. Site visits and a Q&A process will also be conducted during the due diligence process. At the conclusion, prospective buyers will be expected to submit a final, binding proposal to acquire 100% of JorMag's share capital. Key upcoming dates and events are summarized below*.

Date	Event
May 16 - Jun 24	Data room access and due diligence review
Jun 6 - Jun 16	Site visits and Q&A
Jun 27, 2016	Final proposals due

For further information, please contact Omar B. Khader (Vice President) at:

Office: +962 6 5200330 ext. 2475 Mobile: +962 79 630 3113

E-mail: omar.khader@capitalinv.com

* The bidding process is subject to the terms and conditions outlined in the bid procedure letter which will be provided to interested parties

Economic data

% change on year ago

	Gross domestic product			Industrial production	Consumer prices		Unemployment rate, %	Current-account balance		Budget balance	Interest rates, %	Currency units, per \$	
	latest	qtr*	2016†	latest	latest	2016†		latest 12 months, \$bn	% of GDP 2016†	% of GDP 2016†	10-year gov't bonds, latest	May 18th	year ago
United States	+2.0 Q1	+0.5	+1.8	-1.1 Apr	+1.1 Apr	+1.2	5.0 Apr	-484.1 Q4	-2.7	-2.5	1.76	-	-
China	+6.7 Q1	+4.5	+6.5	+6.0 Apr	+2.3 Apr	+1.8	4.0 Q1§	+293.5 Q1	+2.8	-3.0	2.69§§	6.54	6.20
Japan	nil Q1	+1.7	+0.5	+0.2 Mar	nil Mar	+0.2	3.2 Mar	+151.1 Mar	+3.8	-6.2	-0.11	110	120
Britain	+2.1 Q1	+1.6	+1.9	-0.3 Mar	+0.3 Apr	+0.6	5.1 Feb††	-146.9 Q4	-4.7	-3.6	1.50	0.68	0.64
Canada	+0.5 Q4	+0.8	+1.6	+0.8 Feb	+1.3 Mar	+1.5	7.1 Apr	-51.6 Q4	-2.8	-1.4	1.37	1.29	1.21
Euro area	+1.5 Q1	+2.1	+1.5	+0.2 Mar	-0.2 Apr	+0.2	10.2 Mar	+356.5 Feb	+2.8	-1.9	0.17	0.89	0.88
Austria	+1.1 Q4	+1.2	+1.1	+0.4 Feb	+0.5 Apr	+1.1	5.8 Mar	+9.6 Q4	+2.5	-2.0	0.51	0.89	0.88
Belgium	+1.4 Q1	+0.8	+1.3	+5.9 Feb	+2.0 Apr	+1.1	8.5 Mar	-0.1 Dec	+0.8	-2.3	0.53	0.89	0.88
France	+1.3 Q1	+2.2	+1.3	-0.8 Mar	-0.2 Apr	+0.2	10.0 Mar	-20.6 Mar†	-0.3	-3.5	0.48	0.89	0.88
Germany	+1.6 Q1	+2.7	+1.5	+0.2 Mar	-0.1 Apr	+0.3	6.2 Apr	+292.3 Mar	+7.6	+0.4	0.17	0.89	0.88
Greece	-1.2 Q1	-1.5	+1.4	-4.0 Mar	-1.3 Apr	+0.7	24.4 Jan	+0.3 Feb	+2.1	-3.9	7.44	0.89	0.88
Italy	+1.0 Q1	+1.2	+1.0	+0.5 Mar	-0.5 Apr	+0.2	11.4 Mar	+40.5 Feb	+1.9	-2.5	1.50	0.89	0.88
Netherlands	+1.4 Q1	+1.9	+1.5	+0.3 Mar	nil Apr	+0.5	7.8 Mar	+68.8 Q4	+9.9	-1.6	0.35	0.89	0.88
Spain	+3.4 Q1	+3.2	+2.8	-1.7 Mar	-1.1 Apr	-0.5	20.4 Mar	+17.1 Feb	+1.0	-3.4	1.56	0.89	0.88
Czech Republic	+4.3 Q4	+2.0	+2.8	+0.7 Mar	+0.6 Apr	+1.5	5.7 Apr§	+1.5 Q4	-0.1	-1.6	0.48	24.0	24.1
Denmark	+0.4 Q4	+0.3	+1.3	-2.6 Mar	nil Apr	+0.7	4.2 Mar	+18.8 Mar	+6.4	-2.8	0.48	6.59	6.57
Norway	+0.7 Q1	+4.0	+1.5	-5.7 Mar	+3.2 Apr	+2.1	4.6 Feb††	+35.3 Q4	+11.6	+7.2	1.37	8.23	7.37
Poland	+4.3 Q4	-0.4	+3.5	+0.5 Mar	-1.1 Apr	+1.7	9.6 Apr§	-2.0 Mar	-2.1	-1.9	3.03	3.90	3.58
Russia	-1.2 Q1	na	-1.3	-0.4 Mar	+7.2 Apr	+8.2	6.0 Mar§	+51.3 Q1	+3.7	-2.2	8.93	65.3	49.0
Sweden	+4.5 Q4	+5.3	+3.4	+5.5 Mar	+0.8 Apr	+0.8	7.7 Mar§	+29.2 Q4	+6.0	-0.6	0.74	8.29	8.23
Switzerland	+0.4 Q4	+1.7	+1.1	-4.5 Q4	-0.4 Apr	-0.7	3.5 Apr	+75.9 Q4	+9.5	+0.3	-0.31	0.98	0.92
Turkey	+5.7 Q4	na	+3.3	+4.7 Mar	+6.6 Apr	+8.2	10.9 Feb§	-29.5 Mar	-4.5	-1.8	10.19	2.97	2.58
Australia	+3.0 Q4	+2.6	+2.5	+1.9 Q4	+1.3 Q1	+1.7	5.7 Apr	-56.0 Q4	-4.1	-2.0	2.30	1.37	1.25
Hong Kong	+0.8 Q1	-1.8	+2.1	-1.3 Q4	+2.9 Mar	+2.6	3.4 Apr††	+9.6 Q4	+2.6	-0.4	1.30	7.76	7.75
India	+7.3 Q4	+4.4	+7.5	+0.1 Mar	+5.4 Apr	+5.2	4.9 2013	-22.6 Q4	-1.0	-3.7	7.48	67.0	63.7
Indonesia	+4.9 Q1	na	+5.1	+3.4 Mar	+3.6 Apr	+4.3	5.5 Q1§	-18.2 Q1	-2.4	-1.9	7.58	13,389	13,137
Malaysia	+4.2 Q1	na	+5.5	+2.8 Mar	+2.6 Apr	+2.9	3.5 Mar§	+7.0 Q1	+2.7	-3.7	3.84	4.05	3.57
Pakistan	+5.5 2015**	na	+4.8	+6.7 Mar	+4.2 Apr	+5.4	5.9 2015	-2.3 Q1	-0.9	-4.6	8.08†††	105	102
Philippines	+6.9 Q1	+4.5	+6.3	+7.8 Mar	+1.1 Apr	+2.9	5.8 Q1§	+8.4 Dec	+3.6	-2.1	4.62	46.7	44.5
Singapore	+1.8 Q1	nil	+2.8	-0.5 Mar	-1.0 Mar	+1.3	1.9 Q1	+57.5 Q4	+20.4	+0.9	2.02	1.38	1.33
South Korea	+2.7 Q1	+1.5	+2.5	-1.5 Mar	+1.0 Apr	+1.3	3.9 Apr§	+107.5 Mar	+7.3	+0.5	1.81	1,183	1,086
Taiwan	-0.8 Q1	+0.8	+2.3	-3.6 Mar	+1.9 Apr	+1.0	3.9 Mar	+76.2 Q4	+12.3	-0.9	0.85	32.7	30.4
Thailand	+3.2 Q1	+3.8	+3.7	+1.8 Mar	+0.1 Apr	+2.7	1.0 Mar§	+31.6 Q4	+2.3	-2.1	2.19	35.6	33.3
Argentina	+2.3 Q2	+2.0	-0.4	-2.5 Oct	— ***	—	5.9 Q3§	-15.9 Q4	-2.3	-2.7	na	14.1	8.95
Brazil	-5.9 Q4	-5.7	-3.7	-11.3 Mar	+9.3 Apr	+8.3	10.9 Mar§	-41.4 Mar	-1.6	-5.4	12.89	3.53	3.02
Chile	+2.0 Q1	+5.3	+3.4	+3.9 Mar	+4.2 Apr	+3.6	6.3 Mar§††	-4.7 Q1	-1.4	-1.6	4.51	691	600
Colombia	+3.3 Q4	+2.4	+3.7	+1.3 Mar	+7.9 Apr	+3.7	10.1 Mar§	-18.9 Q4	-5.1	-1.9	8.03	3,030	2,430
Mexico	+2.5 Q4	+2.2	+2.4	-2.0 Mar	+2.5 Apr	+3.1	4.2 Mar	-32.4 Q4	-2.8	-3.0	6.06	18.4	15.1
Venezuela	-8.8 Q4~	-8.4	-7.0	na	na	+181	6.0 Dec§	-17.8 Q3~	-1.4	-14.4	11.17	9.99	6.30
Egypt	+4.0 Q4	na	+4.0	-10.3 Mar	+10.3 Apr	+8.8	12.7 Q1§	-16.8 Q4	-2.0	-9.6	na	8.88	7.60
Israel	+1.7 Q1	+0.8	+3.7	-2.3 Feb	-0.9 Apr	+1.7	5.3 Mar	+13.8 Q4	+4.3	-2.5	1.76	3.84	3.83
Saudi Arabia	+3.4 2015	na	+2.8	na	+4.3 Mar	+3.8	5.7 2014	-53.5 Q4	+0.1	-8.0	na	3.75	3.75
South Africa	+0.6 Q4	+0.6	+0.8	-1.5 Mar	+6.2 Apr	+6.4	26.7 Q1§	-13.6 Q4	-4.1	-3.3	9.47	15.7	11.9

Source: Haver Analytics. *% change on previous quarter, annual rate. †The Economist poll or Economist Intelligence Unit estimate/forecast. §Not seasonally adjusted. †New series. ~2014 **Year ending June. ††Latest 3 months. †††3-month moving average. §§5-year yield. ***Official number not yet proved to be reliable; The State Street PriceStats Inflation Index, March 34.88%; year ago 27.1% †††Dollar-denominated bonds.

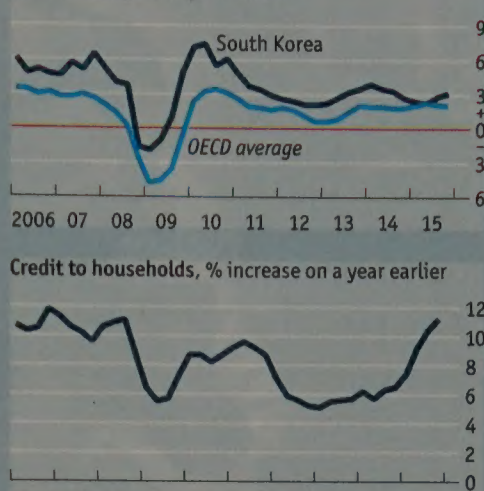


Markets

	Index May 18th	% change on		
		one week	in local currency	in \$ terms
United States (DJIA)	17,526.6	-1.0	+0.6	+0.6
China (SSE)	2,938.3	-1.0	-20.7	-21.2
Japan (Nikkei 225)	16,644.7	+0.4	-12.6	-4.0
Britain (FTSE 100)	6,165.8	+0.1	-1.2	-2.0
Canada (S&P TSX)	13,826.0	+0.3	+6.3	+14.1
Euro area (FTSE Euro 100)	1,000.0	-0.1	-8.6	-5.1
Euro area (EURO STOXX 50)	2,956.4	nil	-9.5	-6.1
Austria (ATX)	2,211.4	-0.2	-7.7	-4.2
Belgium (Bel 20)	3,353.2	+0.3	-9.4	-5.9
France (CAC 40)	4,319.3	+0.1	-6.9	-3.3
Germany (DAX)*	9,943.2	-0.3	-7.4	-3.9
Greece (Athex Comp)	628.3	+1.5	-0.5	+3.3
Italy (FTSE/MIB)	17,713.6	+0.1	-17.3	-14.1
Netherlands (AEX)	434.5	-0.1	-1.7	+2.1
Spain (Madrid SE)	884.8	+1.2	-8.3	-4.8
Czech Republic (PX)	873.4	+0.7	-8.7	-5.2
Denmark (OMXCBO)	859.8	+0.5	-5.2	-1.2
Hungary (BUX)	26,026.2	-3.1	+8.8	+12.9
Norway (OSEAX)	660.7	+1.4	+1.8	+9.5
Poland (WIG)	46,609.8	+1.2	+0.3	+1.6
Russia (RTS, \$ terms)	926.8	nil	+9.4	+22.4
Sweden (OMXS30)	1,340.9	+1.1	-7.3	-5.7
Switzerland (SMI)	7,973.9	+0.5	-9.6	-7.8
Turkey (BIST)	77,243.9	-2.3	+7.7	+5.8
Australia (All Ord.)	5,420.5	-0.3	+1.4	+0.7
Hong Kong (Hang Seng)	19,826.4	-1.1	-9.5	-9.7
India (BSE)	25,704.6	+0.4	-1.6	-2.8
Indonesia (JSX)	4,734.4	-1.4	+3.1	+6.1
Malaysia (KLSE)	1,635.7	-0.5	-3.4	+2.5
Pakistan (KSE)	36,318.2	+0.1	+10.7	+10.7
Singapore (STI)	2,777.1	+1.6	-3.7	-0.8
South Korea (KOSPI)	1,956.7	-1.2	-0.2	-1.1
Taiwan (TWI)	8,159.7	+0.3	-2.1	-1.6
Thailand (SET)	1,400.5	+1.3	+8.7	+9.9
Argentina (MERV)	12,829.9	-5.2	+9.9	+0.8
Brazil (BVSP)	50,561.7	-4.2	+16.6	+30.6
Chile (IGPA)	19,510.6	-0.7	+7.5	+10.2
Colombia (IGBC)	9,866.8	-0.3	+15.4	+20.9
Mexico (IPC)	45,551.2	+0.1	+6.0	-0.4
Venezuela (IBC)	15,014.4	-2.3	+2.9	na
Egypt (Case 30)	7,637.0	+1.8	+9.0	-3.9
Israel (TA-100)	1,221.4	-0.6	-7.1	-5.9
Saudi Arabia (Tadawul)	6,737.4	+1.3	-2.5	-2.4
South Africa (JSE AS)	52,797.2	+1.3	+4.1	+2.5

South Korea

GDP, % change on a year earlier

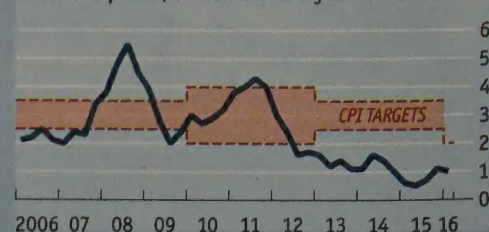


Credit to households, % increase on a year earlier

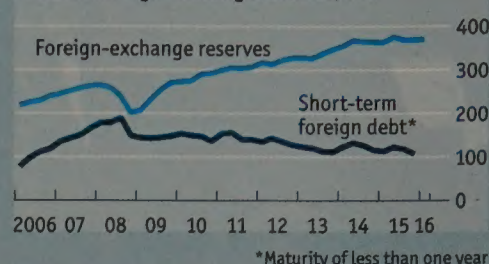
Source: OECD



Consumer prices, % increase on a year earlier



Debt and foreign-exchange reserves, \$bn



Other markets

	Index May 18th	% change on		
		one week	in local currency	in \$ terms
United States (S&P 500)	2,047.6	-0.8	+0.2	+0.2
United States (NAScomp)	4,739.1	-0.5	-5.4	-5.4
China (SSEB, \$ terms)	342.8	-3.2	-19.1	-19.6
Japan (Topix)	1,338.4	+0.3	-13.5	-5.1
Europe (FTSEurofirst 300)	1,325.8	+0.8	-7.8	-4.2
World, dev'd (MSCI)	1,641.1	-0.7	-1.3	-1.3
Emerging markets (MSCI)	794.2	-1.7	nil	nil
World, all (MSCI)	394.7	-0.8	-1.2	-1.2
World bonds (Citigroup)	932.9	-1.1	+7.2	+7.2
EMBI+ (JPMorgan)	758.9	-0.3	+7.7	+7.7
Hedge funds (HFRX)	1,153.8 [§]	-0.1	-1.7	-1.7
Volatility, US (VIX)	16.0	+14.7	+18.2 (levels)	
CDSs, Eur (iTRAXX) [†]	78.0	+1.8	+1.1	+5.0
CDSs, N Am (CDX) [†]	83.7	+2.3	-5.2	-5.2
Carbon trading (EU ETS) €	6.1	+22.1	-26.8	-24.0

Sources: Markit; Thomson Reuters. *Total return index.

[†]Credit-default-swap spreads, basis points. [§]May 17th.Indicators for more countries and additional series go to: Economist.com/indicatorsThe Economist commodity-price index
2005=100

	% change on			
	May 10th	May 17th*	one month	one year
Dollar Index				
All Items	136.0	137.4	+2.1	-4.5
Food	160.9	164.5	+4.8	+3.7
Industrials				
All	110.1	109.3	-1.7	-14.9
Nfa [†]	120.3	119.9	+0.5	-3.5
Metals	105.7	104.7	-2.7	-19.6
Sterling Index				
All items	171.0	172.8	+1.7	+2.3
Euro Index				
All items	148.4	150.7	+2.5	-6.2
Gold				
\$ per oz	1,261.2	1,279.5	+2.0	+5.9
West Texas Intermediate				
\$ per barrel	44.7	48.6	+18.3	-15.6

Sources: Bloomberg; CME Group; Cotlook; Darmann & Curl; FT; ICCO; ICO; ISO; Live Rice Index; LME; NZ Wool Services; Thompson Lloyd & Ewart; Thomson Reuters; Urner Barry; WSJ. *Provisional

[†]Non-food agriculturals.

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Blessed are the peacemakers

Daniel Berrigan SJ, priest, poet and anti-war activist, died on April 30th, aged 94

TO DO good. On every occasion to do the right thing as he saw it and Christ taught it, no matter how disruptive and no matter what the cost. This was Daniel Berrigan's motivation. He was not concerned with the outcome of it, let alone success. A good action must go somewhere; do it, let it go. If God willed, it might mean lives saved, swords beaten into ploughshares and the world smiling with peace.

In the febrile America of the Vietnam-war years, however, it more often meant obloquy, humiliation, scorn, the hand of a federal agent on his collar. Between 1970 and 1995 he spent a quarter of his time in prison, in denim garb he liked to think of as the vestments of a new Catholic church. He was declared the enemy both of that church (by Francis Cardinal Spellman, Archbishop of New York) and of the state (by J. Edgar Hoover, head of the FBI). But then, as he liked to say, if you were serious about Jesus, you had better start considering whether you'd look good on wood.

The best act, one he wished he had done much sooner, was carried out on May 17th 1968 in a parking lot in Catonsville, Maryland. He and eight others, mostly in religious orders, one his priest-brother Philip, made a blaze there of 378 stolen files of young men about to be drafted to fight in Vietnam. The fire was set with napalm

they had made at home, from soap-shards and kerosene. He apologised over the pyre for "the angering of the orderlies in the front parlour of the charnel house"; but they had not, like the government, burned children. Only papers: or, as he saw them, hunting licences to track, rape and char human beings.

This destruction of government property won him three years in jail, which he refused to accept. It was morally inconsistent to bow to an illegitimate system, so he went on the run instead, living exultantly for four months in "felonious vagrancy", the first-ever priest on the FBI's most-wanted list. Come, Holy Spirit! Like a Pentecost, Catonsville lit up people's hearts, a spreading fire of protest across America. It also made him that "pumped-up absurdity", a celebrity-priest with a bad Beatles haircut and a black polo-neck, puckishly turning up wherever trouble beckoned.

He had been warned about that. The two chief influences in his life—Dorothy Day, founder of the Catholic Worker Movement, and Thomas Merton, a Trappist philosopher—pushed him to work among outcasts and to labour for peace, but not in the public eye. His Jesuit superiors, embarrassed by his fervour, tried to restrain him by sending him abroad, to France and Latin America. Contact with worker-priests

there just fired him all the more. How could he be quiet, when all around him in the 20th century men continued to ignore God's fundamental precept, Thou shalt not kill? How could he be invisible, when lepers, beggars and the downtrodden cried for something to be done? Outraged love drove him to be loud, turning lessons into lectures at Yale and Cornell, addressing crowds and writing 50 books, many of them poetry, as this, called "Miracles":

Were I God almighty, I would ordain,
rain fall lightly where old men trod,
no death in childbirth, neither infant nor
mother,
ditches firm fenced against the errant blind,
aircraft come to ground like any feather.

No mischance, malice, knives, set against life,
tears dried...

Vietnam over, he did not rest. In 1980 he led a group into GE's missile plant in Pennsylvania to attack the eggshell-thin warheads with hammers: the most violent gesture in a life dedicated to non-violence, to opening hand and heart to the enemy. He too struggled mightily to replace his own anger, "the death game", with love. In his 80s he took part in Occupy Wall Street and marched against war in Iraq. Fearlessly he stood in the path of governments and corporations: for "powers and dominations" remained subject to Christ, to his gentleness. Day by day he listened ("Want to rap?"), shared whatever he ate and held the hands of the dying in an AIDS hospice in Greenwich Village. "Let's *re-member* each other," he would say.

Ad Majorem Dei Gloriam

To many—to himself sometimes—it seemed odd that he was a Jesuit, submitting himself to their discipline, authority and institutional life. It did not fit with the thin boy, a poor feeder and never brawny, who had so feared his father's heavy judgment-tread and his rages like an uncontrolled cyclone. It did not fit with his teenage suspicions of a distant, blind-as-a-bat deity, or even with his later hope that God would just stop imagining these flawed creatures called men. Oddly, though, the Jesuits had room for his sort, with only moments of squirming; and from the age of 18 his loyalty never swerved.

He merely wished they might be more like him: an order of uncompromising peacemakers who no longer oiled the ecclesiastical machinery or sided, like the whole church, with warmaking governments. His hope sometimes seemed forlorn indeed that universal peace would come. But he was never without belief that all was tending, despite appearances, towards the resurrection; that saving compassionate grace, like some divine ship, "its sails/silken and tough in the wind" was beating on and on, towards the good. ■

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